# ENDANGERED, THREATENED, AND SPECIAL CONCERN PLANTS, ANIMALS, AND NATURAL COMMUNITIES OF KENTUCKY WITH HABITAT DESCRIPTION

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# Kentucky State Nature Preserves Commission Key for Monitored List Report

Within a county, elements are arranged first by taxonomic complexity (plants first, natural communities last), and second by scientific name. A key to status, ranks, and count data fields follows.

### **STATUS**

KSNPC: Kentucky State Nature Preserves Commission status:

N or blank = none E = endangered T = threatened S = special concern H = historic X = extirpated

<u>USESA</u>: U.S. Fish and Wildlife Service status:

LTNL = Listed Threatened in part of its range, but is not listed in Kentucky (Copperbelly water snake has a special conservation agreement in 14 Kentucky counties as an alternative to Federal Listing.)

### **RANKS**

GRANK: Estimate of element abundance on a global scale:

G1 = extremely rare G2 = rare G3 = uncommon G4 = common G5 = very common GU = uncertain GH = historically known and expected to be rediscovered GX = extinct

Subspecies and variety abundances are coded with a 'T' suffix; the 'G' portion of the rank then refers to the entire species.

SRANK: Estimate of element abundance in Kentucky:

S1 = extremely rare S2 = rare S3 = uncommon S4 = many occurrences S5 = very common

SA = accidental SRF = reported falsely in literature SU = uncertain SX = extirpated

SE = exotic ? = unknown SH = historically known in state SZ = not of significant conservation concern

SR = reported but without persuasive documentation S#B - breeding rank for non-resident species

S#N - non-breeding rank for non-resident species

### **COUNT DATA FIELDS**

# OF OCCURRENCES: Number of occurrences of a particular element from a county. Column headings are as follows:

- E currently reported from the county
- H reported from the county but not seen since 1980 (at least 20 years)
- F reported from county & cannot be relocated but for which further inventory is needed (previously reported as "O")
- X known to have extirpated from the county
- U reported from a county but cannot be mapped to a quadrangle or exact location.

The data from which the county report is generated is continually updated. The date on which the report was created is in the report footer. Contact KSNPC for a current copy of the report.

Please note that the quantity and quality of data collected by the Kentucky Natural Heritage Program are dependent on the research and observations of many individuals and organizations. In most cases, this information is not the result of comprehensive or site-specific field surveys; many natural areas in Kentucky have never been thoroughly surveyed, and new species of plants and animals are still being discovered. For these reasons, the Kentucky Natural Heritage Program cannot provide a definitive statement on the presence, absence, or condition of biological elements in any part of Kentucky. Heritage reports summarize the existing information known to the Kentucky Natural Heritage Program at the time of the request regarding the biological elements or locations in question. They should never be regarded as final statements on the elements or areas being considered, nor should they be substituded for on-site surveys required for environmental assessments.

KSNPC appreciates the submission of any endangered species data for Kentucky from field observations. For information on data reporting or other data services provided by KSNPC, please contact the Data Manager at:

Kentucky State Nature Preserves Commission 801 Schenkel Lane Frankfort, KY 40601 phone: (502) 573-2886

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Page 3 of 50

Scientific name	Common name	Statuses	Ranks		# of	Оссі	urrer	ıces
Habitat				Е	<u>H</u>	F	<u>X</u>	U
Mosses								
Abietinella abietina	Wire Fern Moss	Τ/	G4G5 / S2?	3	0	0	0	0
Anomodon rugelii		Τ/	G5 / S2?	5	0	0	0	0
Brachythecium populeum	Matted Feather Moss	E/	G5 / S1?	1	0	0	0	0
Bryum cyclophyllum		E/	G4G5 / S1?	1	0	0	0	0
Bryum miniatum  On wet rocks, esp. in or near brooks or or	n cliffs (Crumand Anderson).	E/	G3G4 / S1?	2	0	0	0	0
Cirriphyllum piliferum		Τ/	G5 / S2?	5	0	0	0	0
Dicranodontium asperulum		E/	G4G5 / S1?	1	2	0	0	0
Entodon brevisetus		E/	G4? / S1?	2	0	0	0	0
On bark, especially at the base of hardwo	ood trees, alson on logs or stumps and rock (Crumand Anderson)							
Herzogiella turfacea		E/	G4G5 / S1?	1	0	0	0	0
Neckera pennata		Τ/	G5 / S2?	10	0	0	0	0
Oncophorus raui		E/	G3 / S1?	4	0	0	0	0
On damp or wet acid rocks, mostly on clif	ffs and oftern near waterfalls in the mountains (Crumand Anderson).							
Orthotrichum diaphanum		E/	G5 / S1?	1	0	0	0	0
Polytrichum pallidisetum	A Hair Cap Moss	Τ/	G4 / S2?	7	0	0	0	0
Polytrichum strictum		E/	G5 / S1?	2	0	0	0	0
Sphagnum quinquefarium	A Sphagnum Moss	E/	G5 / S1?	1	0	0	0	0
Tortula norvegica	Tortula	E/	G5 / S1?	1	0	0	0	0
Vascular Plants								
Acer spicatum	Mountain Maple	E/	G5 / S1S2	3	0	1	3	0
Cool, moist, mesic woods. often associate	ed with cool air drainages from caves, or at high elevations; periglacial boulderfields (We	akley 1998).						
Aconitum uncinatum	Blue Monkshood	Τ/	G4 / S2	3	3	0	0	0
	ND ALLUVIAL SOILS ALONG STREAMS IN THE CUMBERLAND PLATEAU.	<b>T</b> /	G5 / S2	-00	•	•	•	•
Adiantum capillus-veneris	Southern Maidenhair-fern REPORTED ON SHALE, OFTEN IN ASSOCIATION WITH WATERFALLS OR NEAR TRA	T /	G5 / S2	23	2	0	0	0
Adlumia fungosa	Allegheny-vine	E/	G4 / S1	4	0	0	0	0
<u> </u>	ttom forests, cool rocky forests (Weakley 1998); well drained sunny openings, rocky and			7	Ü	Ü	Ü	J
Aesculus pavia SWAMP FORESTS, USUALLY STAGNA	Red Buckeye NT (WEAKLEY 1998); RICH DAMP WOODS (GLEASON & CRONQUIST 1991); WOOD	T / OS AND THICKETS.	G5 / S2S3	3	4	0	2	0
Agalinis auriculata Barrens, prairies	Earleaf False Foxglove	E/	G3 / S1	1	0	0	0	0
Agalinis obtusifolia	Ten-lobe False Foxglove	E/	G4G5Q / S1	7	1	0	0	0
Pine thickets and openings on the coasta	ıl plain, usually sandy soil (Fernald 1970).							
Agalinis skinneriana	Pale False Foxglove	1	G3 / SNA	1	0	0	0	0

Scientific name	Common name	Statuses	Ranks		# of	Occi	urrer	ices
Habitat				Е	Н	F	Χ	U
Agastache scrophulariifolia OPEN WOODS AND WOOD'S EDGES	Purple Giant Hyssop	H /	G4 / SH	0	1	0	0	0
Ageratina luciae-brauniae  MOIST, SHELTERED (BEHIND DRIP LINE) BY	Lucy Braun's White Snakeroot SANDSTONE ROCKHOUSES.	S/	G3 / S3	67	13	4	0	0
Agrimonia gryposepala RICH, MOIST WOODS, THICKETS AND WOOD	Tall Hairy Groovebur DLAND BORDERS.	Τ/	G5 / S1S2	3	3	0	0	0
Amianthium muscitoxicum	Fly Poison WOODS. IN KY, REPORTED FROM PINE-OAK WOODS AND SANDSTONE OUTCROPS.	Τ/	G4G5 / S1S2	3	3	0	0	0
Amsonia tabernaemontana var. gattingeri	Eastern Blue-star forests and moist, rich slope forests (Weakley 1998).	E/	G5T2T3Q / S2?	3	0	0	0	0
Angelica triquinata  Hardwood forests on mountain summits, thickets	Filmy Angelica s, rocky slopes, roadbanks, stream margins and meadows.	E/	G4 / S1S2	7	1	0	0	0
Apios priceana  Rocky limestone open wooded slopes and floodp	Price's Potato-bean blain edges among mixed hardwoods.	E/LT	G2 / S1	9	2	1	1	0
Arabis hirsuta	Western Hairy Rockcress	T /	G5 / S1S2	1	2	0	0	0
Arabis perstellata  Rocky, wooded slopes on blackish clay loams ov	Braun's Rockcress ver limestone or acid limestone cobble.	T/LE	G2 / S2	37	0	1	5	0
Aristida ramosissima DRY PRAIRIES, GLADES, STERILE OR OPEN	Branched Three-awn Grass	H /	G5 / SH	0	1	0	0	0
Armoracia lacustris  OUIET SHORES OR MUDDY WATERS OF SLO	Lakecress DUGHS, CYPRESS SWAMPS, SEASONAL SLOUGHS, OR SLOW WATER.	Τ/	G4? / S1S2	13	0	0	0	0
Aureolaria patula WOODS (GLEASON & CRONQUIST 1991); OPI	Spreading False Foxglove	S/	G3 / S3	38	3	0	1	0
Baptisia australis var. minor	Blue Wild Indigo AIRIES, OAK SAVANNAS OR AREAS THAT WERE FORMERLY SUCH COMMUNITIES (V	S / WEAKLEY 1998	G5T4 / S2S3 ); IN	5	4	0	0	0
Baptisia bracteata var. leucophaea PRAIRIES AND OPEN DRY OR UPLAND WOO	Cream Wild Indigo DS; SANDHILLS.	S/	G4G5T4T5 / S3	54	5	0	2	0
Baptisia tinctoria SANDHILLS, PINE FLATWOODS, XERIC WOO	Yellow Wild Indigo DLANDS, RIDGES, WOODLAND EDGES, AND ROADBANKS (WEAKLEY 1998).	Τ/	G5 / S1S2	12	1	0	0	0
Bartonia virginica BOGS, SWAMPS, SAVANNAS (WEAKLEY 1998	Yellow Screwstem B); DRY OR WET ACID SOIL; IN KY, MOSSY SEEPS.	Τ/	G5 / S2	22	1	1	0	0
Berberis canadensis Limestone woodlands.	American Barberry	E/	G3 / S1	1	0	0	0	0
Berchemia scandens SWAMPS AND WET WOODS, CHIEFLY ON TH CALCAREOUS ROCK OR SEDIMENT (WEAKLE	Supple-jack IE COASTAL PLAIN (GLEASON & CRONQUIST 1991); ALSO, IN MESIC TO EVEN XERIC EY 1998)	T / UPLANDS OVE	G5 / S1S2 ER	5	0	1	0	0
Bolboschoenus fluviatilis  Marshes, standing water, and fresh-tidal or fresh-	River Bulrush water shores, tolerant of alkali (Weakley 1998); riverbanks.	E/	G5 / S1S2	4	0	0	1	0
Botrychium matricariifolium  Thickets and rich soils in subacid conditions (Gle	Matricary Grape-fern	E/	G5 / S1	2	0	0	0	0

Scientific name	Common name	Statuses	Ranks		# of	Occi	urrer	ıces
Habitat				Е	Н	F	X	U
Botrychium oneidense Moist or boggy forests (Weakley 1998); second gro	Blunt-lobe Grape-fern owth northern hardwood forest, grassy openings at high elevations.	H /	G4Q / SH	0	1	0	0	0
Bouteloua curtipendula PLAINS, PRAIRIES AND ROCKY HILLS.	Side-oats Grama	S/	G5 / S3?	14	1	0	0	0
Boykinia aconitifolia STREAMBANKS, RIVERBANKS, IN CREVICES IN	Brook Saxifrage N SPRAY CLIFFS AROUND WATERFALLS, SEEPAGES (WEAKLEY 1998).	Τ/	G4 / S2	4	1	0	0	0
Cabomba caroliniana SWAMPS, PONDS AND QUIET STREAMS.	Carolina Fanwort	Τ/	G3G5 / S2	3	1	0	0	0
Calamagrostis porteri ssp. insperata In IL, cool, nw and ne-facing, floristically rich, dry-m sphagnum. (from report submitted to ILHP.)	Bent Reedgrass nesic forests. Occurs in oak-hickory forest leaf litter zones to moss and lichen dominations.	E / ated substrates includi	G4T3 / S1S2 ng	4	0	0	0	0
Calamagrostis porteri ssp. porteri DRY ROCKY WOODS ON MOUNTAIN SUMMITS	Porter's Reedgrass	Τ/	G4T4 / S2S3	11	0	0	0	0
Calopogon tuberosus Sphagnous bogs, fens, savannas and wet shores;	Grass Pink in KY, dry sandy pine (-oak) woods and swamps	E/	G5 / S1	2	14	0	3	0
Calycanthus floridus var. glaucus RICH MTN WOODS, HILLSIDES, STREAMBANKS	Eastern Sweetshrub S.	Τ/	G5T5 / S2	10	4	0	0	0
Carex aestivalis Sandstone and acid soils of mountain woods; in KY	Summer Sedge	E/	G4 / S1	4	1	0	0	0
Carex alata GENERALLY KNOWN FROM WET SOIL MOSTLY	Broadwing Sedge Y NEAR THE COAST (GLEASON & CRONQUIST 1991); MARSHES (KY)	Т/	G5 / S1S2	2	0	0	0	0
Carex appalachica DRY MESIC WOODLAND OPENINGS.	Appalachian Sedge	Т/	G4 / S2?	7	0	0	0	0
Carex atlantica ssp. capillacea Bogs and seepages (Weakley 1998); in KY, woode	Prickly Bog Sedge ed acid seeps.	E/	G5T5? / S1S2	3	0	0	0	0
Carex buxbaumii SWAMPS, BOGS, WET MEADOWS AND SHORE	Brown Bog Sedge	H /	G5 / SH	0	1	0	0	0
Carex crawei  CEDAR GLADES AND PRAIRIES, ALSO REPOR	Crawe's Sedge TED IN CALCAREOUS SHORES AND MEADOWS.	S/	G5 / S2S3	8	1	0	0	0
Carex crebriflora	Coastal Plain Sedge DRESTS (WEAKLEY 1998); MESIC LOESS BLUFFS IN WESTERN KY.	Т/	G4 / S1?	1	0	0	0	0
Carex decomposita SWAMPS, SINKHOLE PONDS, OFTEN ON FLOA WATER LEVEL) (WEAKLEY 1998)	Epiphytic Sedge TING LOGS; ALSO OFTEN GROWING ON CYPRESS KNEES, CYPRESS BASES	T / (OFTEN AT OR NEA	G3 / S2 R	2	0	0	0	0
Carex gigantea BOTTOMLAND FORESTS AND FLOODPLAIN SW	Large Sedge VAMPS; ALSO CYPRESS DEPRESSIONS (WEAKLEY 1998)	Τ/	G4 / S2	2	0	0	0	0
Carex hystericina SWAMPS, WET MEADOWS, SHORELINES; CALO	Porcupine Sedge CAREOUS MARSHES (WEAKLEY 1998).	H /	G5 / SH	0	8	0	0	0
Carex joorii  Wet woods and swamps, seasonal ponds and ponds	Cypress-swamp Sedge	E/	G4G5 / S1S2	4	0	0	0	0
Carex juniperorum	Cedar Sedge spen to partially open areas associated with glades or shale barrens.	E/	G2 / S1S2	5	0	0	0	0

Scientific name	Common name	Statuses	Ranks		# of	Осс	u <b>rre</b> r	ıces
Habitat				Е	Н	F	Х	U
Carex leptonervia  Nutrient-rich forests, such as rich, seepy nort	Finely-nerved Sedge hern hardwood forests (Weakley 1998).	E/	G4 / S1	2	0	0	0	0
Carex pellita RICH MEADOWS, SWALES AND SHORES	Woolly Sedge	Н/	G5 / SH	0	1	0	0	0
Carex reniformis  Moist soil (Gleason and cronq. 1991)	Reniform Sedge	E/	G4? / S1?	1	0	0	0	0
Carex roanensis	Roan Mountain Sedge coded south-facing slopes between 3600 and 3800 ft (Jones 1999).	E/	G2 / S1	2	0	0	0	0
Carex rugosperma DRY MESIC WOODLAND, PRAIRIE.	Umbel-like Sedge	Т/	G5 / S2?	5	2	0	0	0
Carex seorsa WET WOODS (GLEASON AND CRONQ 199	Weak Stellate Sedge 91)ALLUVIAL AND WET WOODLANDS (JONES 2000 DRAFT).	S/	G4 / S2S3	3	0	0	0	0
Carex stipata var. maxima SWAMPY WOODLANDS.	Stalkgrain Sedge	H /	G5TNR / SH	0	3	0	0	0
Carex straminea SWAMPS AND WET MEADOWS.	Straw Sedge	Τ/	G5 / S2?	1	0	0	0	0
Carex tetanica  Meadows and low woods (Gleason and crond	Rigid Sedge g 1991)	E/	G4G5 / S1?	1	0	0	0	0
Carya aquatica BOTTOMLANDS AND FLOODPLAIN SWAM	Water Hickory  IPS.	Т/	G5 / S2S3	5	2	1	0	0
Carya carolinae-septentrionalis  DRY LIMESTONE HILLS, RIVER BOTTOMS KNOBS.	Southern Shagbark Hickory  S AND LOW INUNDATED WOODS; MEDLEY LISTS DRY OAK-HICKO	T / DRY FOREST ON SLOPES BLUFFS AND	G5? / S2S3	1	0	0	0	0
Castanea dentata  Acidic upland soils (Gleason and Cronquist);	American Chestnut mesic and xeric forests (Weakley 1998).	E/	G4 / S1?	2	0	0	0	0
Castanea pumila	Allegheny Chinkapin IERALLY IN FIRE-MAINTAINED HABITATS (WEAKLEY 1998); DRY C	T / OR MOIST ACID SOIL (GLEASON &	G5 / S2	8	7	2	0	0
Castilleja coccinea  Damp, open sandy or rocky soil in meadows 1998); in KY, south- facing limestone slopes.	Scarlet Indian Paintbrush and woodland edges; also, fens, barrens, rock outcrops, meadows, we	E / t pastures, and grassy openings (Weakle	G5 / S1 y	6	0	1	1	0
Ceanothus herbaceus  SANDY OR ROCKY SOIL, PLAINS, AND PR COBBLE BARS (MEDLEY 1993).	Prairie Redroot RAIRIES (GLEASON & CRONQUIST 1991); IN KY, SANDSTONE BOU	T / ILDER-COBBLE BARS AND LIMESTONI	G5 / S2	11	0	0	0	0
Cheilanthes alabamensis Calcareous bluffs and rocks (Gleason & Cron	Alabama Lipfern nquist 1991).	H /	G4G5 / SH	0	2	0	0	0
Cheilanthes feei Calcareous bluffs and rocks (Gleason & Cror	Fee's Lipfern	E/	G5 / S1	1	0	0	0	0
Chelone obliqua var. obliqua Streambanks, swamp forests (Weakley 1998	Red Turtlehead	E/	G4T3T4 / S1	0	1	0	0	0
Chelone obliqua var. speciosa	Rose Turtlehead LOUGHS; ALSO ALLUVIAL WOODS (FERNALD 1970).	S/	G4T3 / S3	7	5	0	0	0

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Habitat				Е	Н	F	Χ	U
Chrysogonum virginianum Rich woods and shaded rocks and in KY	Green-and-gold on high sandy terraces in mesic woods.	E/	G5 / S1	1	0	0	0	0
Chrysosplenium americanum  Springy or muddy soil, usually in shade (Control sandstone rocks, rills, cool wet areas.	American Golden-saxifrage Gleason & Cronquist 1991); springheads, open wooded seeps, seepage banks of s	T / spring-fed streams, seasonally we	G5 / S2? et	7	0	0	0	0
Cimicifuga rubifolia COOL MOUNTAIN WOODS (GLEASON	Appalachian Bugbane & CRONQUIST 1991); MESOPHYTIC FOREST ON N FACING (?) SLOPES, RIVE	T / ER BLUFFS AND RAVINES.	G3 / S2	5	2	0	0	0
Circaea alpina COOL MOIST WOODS AND OPENINGS	Small Enchanter's Nightshade INCLUDING MESIC WOODED RAVINES.	SI	G5 / S3	21	0	0	0	0
Clematis crispa WET WOODS, SWAMPS, AND SLOUGH	Blue Jasmine Leather-flower HMARGINS.	Т/	G5 / S2	3	2	0	2	0
Collinsonia verticillata  Rich forests, ranging from moist forests to	Whorled Horse-balm prather dry oak forests (Weakley 1998).	E/	G3 / S1?	1	0	0	0	0
Comptonia peregrina  Disturbance (fire) mediated. river bars, op	Sweet-fern pen woods, clearings and pastures, often on sandy soil.	E/	G5 / S1	4	0	0	0	0
Conradina verticillata  Cobble bars in large streams in full sun ar	Cumberland Rosemary	E/LT	G3 / S1	5	0	6	0	0
Convallaria montana  Rocky or dry-mesic mixed hardwood fores	American Lily-of-the-valley	E/	G4 / S1	1	0	0	0	0
Corallorhiza maculata  Dry - mesic mixed hardwood forest.	Spotted Coralroot	E/	G5 / S1	1	0	0	0	0
Coreopsis pubescens OPEN WOODS, DRY SLOPES AND CLII	Star Tickseed FFS AND BACK-EDGE OF BOULDER-COBBLE BARS NEAR RIVERBANK.	S/	G5? / S2S3	20	1	0	0	0
Corydalis sempervirens DRY OR ROCKY WOODS AND SANDST	Rock Harlequin TONE OUTCROPS.	S/	G4G5 / S3?	16	2	0	0	0
	Fraser's Sedge ly rather acidic and associated with rhododendron maximum, at moderate elevation (Medley) and above 2000 ft. elevation (Kral).	E / ns (Weakley 1998); in KY, reporte	G4 / S1 ed	6	1	0	0	0
Cypripedium candidum	Small White Lady's-slipper KY, plant generally found at the lower edge of limestone slope glades.	E/	G4 / S1	5	0	0	0	0
Cypripedium kentuckiense	Kentucky Lady's-slipper I floodplains of mid-sized or rarely large streams in sandy alluvium.	E/	G3 / S1S2	21	2	5	0	0
Cypripedium parviflorum BOGS, MOSSY SWAMPS AND WOODS	Small Yellow Lady's-slipper , WET SHORES; IN KY, RICH MESIC FORESTED SLOPES.	Т/	G4G5 / S2	9	2	3	2	0
Dalea purpurea PRAIRIE PATCHES AND CEDAR GLADI	Purple Prairie-clover	S/	G5 / S3?	7	0	0	0	0
Delphinium carolinianum  DRY WOODS, PRAIRIES, SANDHILLS (	Carolina Larkspur GLEASON & CRONQUIST 1991); EDGES OF CEDAR GLADES.	Т/	G5 / S1S2	6	2	0	3	0
Deschampsia cespitosa	Tufted Hairgrass	E/	G5 / S1S2	4	0	0	0	0
Deschampsia flexuosa DRY, OPEN OR PARTIALLY SHADED S	Crinkled Hairgrass  ANDY OR ROCKY SOIL IN MESIC FORESTS AND CRACKS IN SANDSTONE C	T / LIFFS AND CLIFF BASES.	G5 / S2	2	0	0	0	0

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Habitat				E	Н	F	Χ	U
Dichanthelium boreale SHORES, MEADOWS, FIELDS AND THICK	Northern Witchgrass KETS, OPEN PINE WOODLANDS, OPENINGS ON SANDSTONE RIDGE TOP	S/	G5 / S2S3	3	0	0	0	0
Didiplis diandra SHALLOW WATERS, MARGINS OF SLOUG	Water-purslane GHS, PONDS, AND SLOW STREAMS.	S/	G5 / S2S3	4	1	0	0	0
	Nodding Mandarin RONQUIST 1991). IN KY, RARE AND LOCAL IN RICH MESOPHYTIC FORES OF TRANSITION FROM C TO E (OR BOTH), WHERE C = TYPICAL OF MOD		G3G4 / S3?	5	8	0	0	0
Dodecatheon frenchii OCCURS ON OR UNDER SHADED CLIFFS 1991).	French's Shooting Star S, SUCH AS SANDSTONE ROCKHOUSES, SOUTH OF THE GLACIAL BOUN	S / IDARY (GLEASON & CRONQUIS <sup>-1</sup>	G3 / S3	17	5	1	0	0
Draba cuneifolia  Dry rocky or sandy soil, cedar glades incl. di	Wedge-leaf Whitlow-grass isturbed sites.	E/	G5 / S1	3	0	0	0	0
Drosera brevifolia  Damp pine savannas, other wet sandy sites,	Dwarf Sundew , rarely in seepage over rock outcrops (Weakley 1998); wet ditches and low field	E /	G5 / S1	1	0	0	0	0
Dryopteris carthusiana ACIDIC, ORGANIC-RICH BOGS, SWAMPS	Spinulose Wood Fern ;, LESS FREQUENTLY IN MOIST ROCKY RAVINES AND RICH FORESTS (W	S / VEAKLEY 1998).	G5 / S3	6	2	4	0	0
Echinodorus berteroi PONDS, SWAMPS, SLOUGHS AND DITCH	Burhead HES.	Т/	G5 / S2	7	0	0	0	0
Echinodorus parvulus Sandy shores, low fields.	Dwarf Burhead	E/	G3Q / S1	2	0	0	0	0
Eleocharis olivacea CREEK BANKS; POOLS AND MARSHES (I	Bright Green Spikerush RADFORD); WET SANDS AND PEATS (FERNALD 1970).	S/	G5 / S1?	1	0	0	0	0
Elodea nuttallii PONDS, COOL WATERS OF SPRING BRA	Western Waterweed NCHES, STREAM MARGINS, SLOUGHS.	Т/	G5 / S2?	1	0	0	0	0
Elymus svensonii XERIC ROCKY OPEN OR WOODED BLUF	Svenson's Wildrye FS ALONG KY AND DIX RIVERS AND TRIBUTARIES.	S/	G2G3 / S3	43	0	0	0	0
Eriophorum virginicum  Peaty sites, occurring in the mountains in bo pocosins, acidic seeps, and peat-burn pools	Tawny Cotton-grass ogs and fens, in the piedmont (formerly) in bogs, in the fall-line sandhills in burne (Weakley 1998).	E / ed-out pocosins, in the coastal plai	G5 / S1? n in	3	0	0	0	0
Eryngium integrifolium  Wet pinelands, meadows and savannas.	Blue-flower Coyote-thistle	E/	G5 / S1	1	0	0	0	0
Erythronium rostratum  MESIC RAVINE FORESTS.	Yellow Troutlily	SI	G5 / S2S3	22	0	0	0	0
Eupatorium semiserratum  Dry to wet open woods, shores, wet prairies sandstone, rocky slopes (Julian Campbell).	Small-flower Thoroughwort ; Steyermark has swamps, low meadows, wet prairies, low fields and low open	E / woods; KY- dry open woods on	G5 / S1?	2	0	0	0	0
Eupatorium steelei  Gentle slopes of degraded sandstone and sl on hilltops and colonizes to roadbanks below	Steele's Joe-pye-weed hale, openings in canopy of acer rubrum, liriodendron, q.velutina, q.borealis, q.av.	T / alba, above 700m (2300 ft), esp. fo	G4 / S2 und	10	0	0	0	0
Euphorbia mercurialina RICH SOIL ON WOODED SLOPES OF RAY	Mercury Spurge VINES (GLEASON & CRONQUIST 1991); DRY-MESIC TO MESIC WOODS IN	T / I THE MOUNTAINS.	G4 / S1S2	7	4	0	0	0

Scientific name	Common name	Statuses	Ranks		# of	Осс	urrer	nces
Habitat				Е	Н	F	Χ	U
Eurybia hemispherica  Dry sandy woods, rock outcrops; also prairie	Tennessee Aster es, less commonly in moist, low ground (Gleason & Cronquist 1991).	E/	G4T4? / S1	1	0	0	0	0
Eurybia radula  Bogs, streamsides and other moist places:	Rough-leaved Aster in KY, seep in transisiton from virginia pine-tuplip tree to red maple-willow oak-sweet of	E /	G5 / S1?	1	0	0	0	0
Eurybia saxicastellii	Rockcastle Aster  BOULDER-COBBLE BARS TO ADJACENT SLOPE FOREST.	Τ/	G1G2 / S1S2	20	0	0	0	0
Fimbristylis puberula	Hairy Fimbristylis  ADOWS AND PRAIRIES, OPEN LIMESTONE, CHERT OR SANDSTONE GLADES; C	T / CEDAR GLADES ON	G5 / S2	6	0	0	0	0
Forestiera ligustrina WOODS NEAR/ON ROCKY SLOPES AND	Upland Privet ALONG STREAMS, IN BARRENS AND GLADES.	Τ/	G4G5 / S2S3	10	0	0	0	0
Gentiana decora  MOIST WOODS AND OPENINGS IN CANO	Showy Gentian  DPY ON MOUNTAIN SUMMITS.	S/	G4? / S3	15	6	1	0	0
Gentiana flavida  Reported in meadows and damp woods; in	Yellow Gentian KY, prairies and open woodlands.	E/	G4 / S1S2	4	1	0	0	0
Gentiana puberulenta  Dry calcareous prairies (cedar glades), barr	Prairie Gentian	E/	G4G5 / S1	6	3	0	0	0
Gleditsia aquatica RIVER SWAMPS AND SLOUGH MARGINS	Water Locust S.	S/	G5 / S3?	3	3	0	0	0
Glyceria acutiflora  Shallow water and wet mucky soils in moun	Sharp-scaled Manna-grass stain ponds, wet pastures (Weakley 1998); muddy pools and pond margins.	E/	G5 / S1S2	3	0	0	0	0
Gratiola pilosa WET MEADOWS, RIVERBANK SEEPS, PO	Shaggy Hedgehyssop OND MARGINS, PINE BARRENS; ALSO SANDY WOODS, CLEARINGS AND ROAD	T / DSIDES (FERNALD 1970).	G5? / S2	7	1	1	0	0
Gratiola viscidula  MARSHES, POND MARGINS AND ALLUV	Short's Hedgehyssop IAL WOODS (FERNALD 1970); WET STREAMBANKS.	S/	G4G5 / S3	8	1	0	0	0
Gymnopogon ambiguus PRAIRIES, GLADES, BARRENS, DRY PIN	Bearded Skeleton-grass IELANDS AND WOODLANDS, DRY FIELDS (WEAKLEY 1998); DRY SANDY OR RC	S / DCKY OPENINGS.	G4 / S2S3	5	0	0	0	0
Gymnopogon brevifolius  Pine savannas, sandhills, dry woodlands (W	Shortleaf Skeleton-grass Veakley 1998); sandy or peaty ground, pine barrens on the coastal plain.	E/	G5 / S1	1	1	0	0	0
Halesia tetraptera  Rich woods and edges of sloughs and oxbo	Common Silverbell	E/	G5 / S1S2	8	10	0	1	0
Hedeoma hispidum  CEDAR GALDE, LIMESTONE OUTCROP,	Rough Pennyroyal STRIP MINE AND OTHER DISTURBED HABITAT.	Τ/	G5 / S2	3	0	0	0	0
Helianthemum bicknellii	Plains Frostweed Also woodlands and glades (Weakley 1998).	E/	G5 / S1S2	0	4	0	2	0
Helianthemum canadense	Canada Frostweed clearings, barrens, also reported from prairies.	E/	G5 / S1?	2	0	0	0	0
Helianthus eggertii	Eggert's Sunflower  in KY; rocky hills and barrens and roadside remnants of this habitat.	T/LT	G3 / S2	36	0	0	0	0
Helianthus silphioides	Silphium Sunflower land borders, open dry uplands, thickets and roadsides.	E/	G3G4 / S1	1	0	0	0	0

Scientific name	Common name	Statuses	Ranks		# of	Осс	urrer	ıces
Habitat				Е	Н	F	Х	U
Heracleum lanatum RICH DAMP SOIL; IN KY, ROADSIDE ON MO	Cow-parsnip DUNTAIN RIDGE.	H /	G5 / SH	0	1	0	0	0
Heteranthera dubia STREAMS, QUIET WATERS OR MUD FLATS	Grassleaf Mud-plantain S, INCLUDING ARTIFICIAL LAKES.	S/	G5 / S3	7	4	0	0	0
Heteranthera limosa SLOUGHS, POND MARGINS AND MUD FLA	Blue Mud-plantain	S/	G5 / S2S3	9	1	0	1	0
Heterotheca subaxillaris var. latifolia DRY, OFTEN SANDY PLACES, PARTICULAI	Broad-leaf Golden-aster RLY DISTURBED SITES.	Τ/	G5T5 / S2	3	0	1	0	0
Hexastylis contracta  Deciduous forests with acidic soil.	Southern Heartleaf	E/	G3 / S1	7	1	0	0	0
Hexastylis heterophylla RICH COVES, DECIDUOUS FOREST. ACID	Variable-leaved Heartleaf SOILS OF SANDY, PEATY OR ROCKY WOODS.	N/	G4G5Q / S3S4	8	0	0	0	0
Hieracium longipilum DRY PRAIRIES, OPEN WOODS AND FIELDS	Hairy Hawkweed S, PARTICULARLY ON SANDY SOIL (GLEASON & CRONQUIST 1991).	Τ/	G4G5 / S2	7	2	0	0	0
Houstonia serpyllifolia Streambanks, grassy balds, moist forests, see Cronquist 1991).	Michaux's Bluets epy rock outcrops, spray cliffs, and moist disturbed areas (Weakley 1998); moist soil in	E / the mountains (Gleason	G4? / S1 &	3	0	0	0	0
Hydrocotyle americana  Bogs, marshes, seepages, cliffs and ledges w	American Water-pennywort here wet by seepage or spray from waterfalls (Weakley 1998); meadows, damp woods	E /	G5 / S1	2	3	0	0	0
Hydrocotyle ranunculoides  Mucky shores, ditches, sloughs,	Floating Pennywort	E/	G5 / S1S2	2	0	0	0	0
Hydrolea ovata Swamps and wet woods (Gleason and Cronqu	Ovate Fiddleleaf uist 1991); in KY, sinkhole swamp.	H /	G5 / SH	0	0	0	1	0
Hydrolea uniflora SWAMPY WOODLANDS, POND AND SLOUG	One-flower Fiddleleaf GH MARGINS, WET DITCHES.	H /	G5 / SH	0	4	1	0	0
Hydrophyllum virginianum MOIST OR WET WOODS, OPEN WET PLAC	Eastern Waterleaf	Τ/	G5 / S2?	3	2	0	0	0
Hypericum adpressum  MARSHES, SHORES, WET MEADOWS, SW.	Creeping St. John's-wort ALES AND DITCHES.	H /	G2G3 / SH	0	1	0	0	0
Hypericum crux-andreae  MOIST OR DRY SANDY WOODS, MEADOW	St. Peter's-wort /S AND BARRENS. ALSO PINE FLATWOODS (WEAKLEY 1998).	Τ/	G5 / S2S3	5	4	0	2	0
Iris fulva Sloughs, muddy shores and swampy woods a	Copper Iris	E/	G5 / S1	8	0	0	0	0
Isoetes butleri Shallow depressions and ledges of limestone	Butler's Quillwort glades and prairies, less commonly in limey areas of acidic glades and prairies or along tocky slopes and barrens; in KY, wet area on a cedar glade.	E / g ponds and creeks	G4 / S1	3	0	0	0	0
Isoetes melanopoda	Blackfoot Quillwort us glades and ledges, margins of ponds and sinkhole ponds, and moist depressions and	E / d ditches in sand	G5 / S1	1	0	0	0	0
Juglans cinerea  MESIC WOODED RAVINES AND ALONG ST	White Walnut	S/	G3G4 / S3	18	0	0	0	0

Scientific name	Common name	Statuses	Ranks		# of	Оссі	urren	ces
Habitat				E	Н	F	Χ	U
Juncus articulatus BOGS, WET MEADOWS, BEACHES AND SHORE	Jointed Rush	S/	G5 / S2S3	7	0	0	0	0
Juncus filipendulus WET PLACES IN CEDAR GLADES.	Ringseed Rush	Т/	G5 / S2?	1	1	1	0	0
Juniperus communis var. depressa IN THIN SOIL AROUND ROCK OUTCROPS ON M COASTAL PLAIN SANDHILLS (SC AND VA) (WEA	Ground Juniper MOUNTAIN SUMMITS AND PIEDMONT MONADNOCKS, HIGH ELEVATION OLD F AKLEY 1998),	T / FIELDS (VIRGINIA), X	G5T5 / S2 ŒRIC	7	0	0	0	0
Koeleria macrantha  Dry soils, prairies, sand hills, open woods (Gleason	Prairie Junegrass & Cronquist 1991); sandstone glades.	E/	G5 / S1	1	0	0	0	0
Krigia occidentalis	Western Dwarf Dandelion	E/	G5 / S1?	1	0	0	0	0
Lathyrus palustris WET MEADOWS, SWAMPS, WET WOODS; IN KY RAILROAD (MEDLEY).	Vetchling Peavine Y, BOULDER COBBLE BARS ALONG CREEKS AND RIVERS, AND KNOWN FROM	T / M A ROADSIDE NEAI	G5 / S2 R A	7	0	0	0	0
Lathyrus venosus  DRY TO MESIC SLOPE AND BOTTOMLAND FOR	Smooth Veiny Peavine RESTS AND WOODLANDS, ESPECIALLY IN BASE-RICH SOILS (WEAKLEY 1998)	S / ).	G5 / S2S3	11	0	0	0	0
Leavenworthia exigua var. laciniata IN FULL SUN ON FLAT-BEDDED OUTCROPS OF AND LAWNS.	Gladecress F SILURIAN LIMESTONE OR DOLOMITE IN SHALLOW SOILS OF GLADES, ROCK	E / K OUCROPS, PASTU	G4T1T2 / S1S2 IRES	48	0	10	19	0
Leavenworthia torulosa LIMESTONE GLADES AND OTHER THIN-SOIL AI	Necklace Gladecress REAS WHERE LIMESTONE BEDROCK IS AT OR NEAR SURFACE, HOLDING W.	T / ATER IN SPRING.	G4 / S2	12	1	0	4	0
Leiophyllum buxifolium	Sand-myrtle SOL) PINELANDS OF THE OUTER COASTAL PLAIN (WEAKLEY 1998). DRY SAN	H /	G4 / SH	0	1	0	0	0
Lespedeza capitata PRAIRIE PATCHES ON LIMESTONE.	Round-head Bush-clover	S/	G5 / S3	8	2	0	0	0
Lespedeza stuevei DRY HILLSIDE, WOODLAND.	Tall Bush-clover	S/	G4? / S3?	3	5	0	0	0
Lesquerella globosa  Calcareous rocks and barrens, wooded cliff edges.	Globe Bladderpod	E/C	G2 / S1	8	10	5	4	0
Lesquerella lescurii GLADES AND FIELDS IN RIVER FLOODPLAINS.	Lescur's Bladderpod	H /	G4 / SH	0	0	0	1	0
Leucothoe recurva  Sluggish pools and backwaters of large rivers, back	Red-twig Doghobble waters, and oxbow lakes (Burr and Warren 1986, Page and Burr 1991, Etnier and S	E / Starnes 1993).	G4G5 / S1	2	0	0	0	0
Liatris cylindracea DRY CALCAREOUS OR SILICEOUS SOIL, HILLS	Slender Blazingstar	Τ/	G5 / S2S3	3	0	1	0	0
Lilium philadelphicum	Wood Lily LSO GRASSY BALDS AND MEADOWS (WEAKLEY 1998)	Τ/	G5 / S2S3	40	7	2	2	0
Lilium superbum  MOIST MEADOWS, MOIST/WET WOODS INCLUI	Turk's Cap Lily DING FLOODPLAINS AND COVES	Τ/	G5 / S1S2	11	2	0	0	0
Limnobium spongia PONDS, BAYOUS, STAGNANT WATER.	American Frog's-bit	Т/	G4 / S2S3	5	4	0	0	0

Scientific name	Common name	Statuses	Ranks		# of	Occ	urrer	nce
Habitat				Е	Н	F	Χ	U
Liparis loeselii BOGS, PEATY MEADOWS, AND DAMP OF THOMPSON).	Loesel's Twayblade R SEEPING THICKETS OR MESIC SLOPES; HAS BEEN FOUND ON ABANDO	T / DNED STRIP MINES (R.	G5 / S2S3	8	0	1	0	0
Listera smallii HUMUS OF DAMP WOODS AND THICKET STREAM HEADS.	Kidney-leaf Twayblade TS, BOGS OR SHADED, WEED-FREE HUMUS BELOW RHODODENDRON ON	T / N MOUNTAIN SLOPES AND	G4 / S2	8	3	1	0	0
Lobelia appendiculata var. gattingeri Limestone glade; also prairies (Fernald 1970	Gattinger's Lobelia	E/	G4G5T4 / S1	1	0	0	0	0
Lobelia nuttallii DAMP TO DRY SANDY OR ARGILLACEOL	Nuttall's Lobelia US SOIL, WET MEADOWS, SANDY SWAMPS ON THE COASTAL PLAIN AND	T /	G4G5 / S2	15	3	1	2	0
Lonicera dioica var. orientalis MOIST WOODS AND THICKETS, OCCASIO	Wild Honeysuckle ONALLY ON DUNES OR IN SWAMPS (GLEASON & CRONQUIST 1991) . ASS	H / SSOCIATED WITH LIMESTONE.	G5TNRQ / SH	1	1	0	0	0
onicera reticulata  Rocky woods and banks.	Grape Honeysuckle	E/	G5 / S1	6	0	0	0	C
.udwigia hirtella Pine barrens, savannas, and sandy soil or p	Hairy Ludwigia peaty swamps, primarily from the coastal plain.	E/	G5 / S1	1	3	0	0	C
ycopodiella appressa  Bogs or sandy banks in acid soils; also sava	Southern Bog Clubmoss	E/	G5 / S1	4	2	0	0	(
_ycopodium clavatum  Open dry woods and rocky places in acid so	Running Pine pil; (Gleason & Cronquist 1991); in KY, sandstone ridge.	E/	G5 / S1?	2	0	0	0	(
Lycopodium inundatum	Northern Bog Clubmoss en in seasonally inundated sites.(Gleason and Cronquist); in KY, temporary pool	E / I of water in mnts.	G5 / S1S2	1	0	0	0	(
Lysimachia fraseri	Fraser's Loosestrife	E/	G2 / S1	0	0	0	2	(
	nks, thin soils around rock outcrops, usually flowering only when exposed to extraction meadows; in KY, stream terrace in wooded ravine.	ra sunlight by a tree-fall light gap	or					
Lysimachia terrestris	Swamp Candles	E/	G5 / S1	1	0	0	0	(
Open swamps and wet soils (Gleason & Cro	onquist 1991); also swamp forests (Weakley 1998).							
Magnolia pyramidata DENSE RICH WOODS AND FLOODPLAIN	Pyramid Magnolia FORESTS.	H /	G4 / SH	1	0	0	0	(
Maianthemum canadense  MOIST MESOPHYTIC WOODS, MOUNTAII	Wild Lily-of-the-valley IN AND STREAM TERRACES, MESIC ROCK FACES, AND RECENT CLEARIN	T / IGS.	G5 / S2	10	0	2	0	(
Maianthemum stellatum  Moist, especially sandy soils of woods, shore	Starflower False Solomon's-seal res, and prairies (Gleason & Cronquist 1991)	E/	G5 / S1	5	1	0	0	(
Malus angustifolia  OPEN DRY - MESIC WOODS AND THICKE	Southern Crabapple ETS.	S/	G5? / S3	35	8	0	0	(
	Hispid Falsemallow I AS PRAIRIES, BOTH LIMESTONE AND SANDSTONE, GLADES, EDGES OF IN VALLEYS AND ALONG GRAVEL BARS (STEYERMARK IN PART); IN KY, O		G3G5 / S2?	5	0	0	0	(
Marshallia grandiflora	Barbara's Buttons ks of large, high-gradient rivers, in KY on river boulder-cobble bars and sandy sh	E/	G2 / S1	6	1	0	0	C

Scientific name	Common name	Statuses	Ranks		# of	Осс	urrer	ıces
Habitat				E	Н	F	Χ	U
Matelea carolinensis Rich thickets, fence rows, edge of woods.	Carolina Anglepod	E/	G4 / S1?	1	1	0	0	0
Melampyrum lineare var. latifolium  DRY OPEN SANDSTONE RIDGETOPS INCL	American Cowwheat LUDING DRY TO DRY-MESIC SECOND GROWTH WOODS, ROAD EDGES AN	T / ID ROCK OUTCROPS.	G5T5 / S2	2	1	0	0	0
Melampyrum lineare var. pectinatum  Sandy soil and barrens on the coastal plain (G	American Cow-wheat Gleason & Cronquist 1991); dry sandy pineland and oak scrub (Fernald 1970).	E/	G5T5 / S1	1	0	0	0	0
Melanthera nivea FLOODPLAINS AND SANDY WOODS INCLU	Snow squarestem  JDING DISTURBED OPENINGS.	S/	G5 / S3?	1	1	0	0	0
Melanthium parviflorum  Moist wooded slopes in the mountains.	Appalachian Bunchflower	E/	G4? / S1	5	1	0	0	0
Melanthium virginicum  Wet acidic seepages and meadows.	Virginia Bunchflower	E/	G5 / S1	2	0	0	0	0
Melanthium woodii RICH DRY OR MESIC WOODS.	Wood's Bunchflower	Т/	G5 / S2	5	1	0	0	0
Minuartia cumberlandensis Shaded, fine grain sandy ledges and rockhous	Cumberland Sandwort ses.	E/LE	G2 / S1	1	0	0	1	0
	Appalachian Sandwort PS OF GRANITE, GRANITIC GNEISS, OR OTHER FALSE GNEISSES AND SCH TIONS (WEAKLEY 1998). WOODED LEDGES, HILLS, AND LESSER MTS. IN K		G4 / S1S2 OPS.	9	0	0	0	0
Mirabilis albida	Pale Umbrella-wort	H /	G5 / SH	0	0	0	1	0
Meadows, grassy openings; in KY, sandy ban			CE / SH				_	
Monarda punctata  DRY SANDY SOILS ON OR NEAR THE COA	Spotted Bee-balm ASTAL PLAIN, WEEDY IN SOME AREAS.	Н/	G5 / SH	0	2	1	0	0
Monotropsis odorata SANDSTONE RIDGETOPS, CHIEFLY PINE	Sweet Pinesap WOODS BUT ALSO MESOPHYTIC WOODS.	Т/	G3 / S2	6	3	2	2	0
Muhlenbergia bushii  Bottomland forests, mesic upland forests, bas substrates (Steyermark 1999).	Bush's Muhly ses and ledges of bluffs, banks of streams and rivers, fens, and less commonly gla	E / ades, often on calcareous	G5 / S1S2	2	0	0	0	0
Muhlenbergia cuspidata	Plains Muhly OR GRAVELLY SOIL AND ALSO ON EDGES OF LIMESTONE BLUFFS AND GL	T / ADES. (RARELY, BOTTOMLA	G4 / S2 AND	14	0	0	0	0
	Hair Grass FORESTS, BOTTOMLAND AND UPLAND PRAIRIES (STEYERMARK 1999); DI ID MEDLEY REPORTS WET WOODS, MARSH EDGES AND FIELDS.	S / RY, DESSICCATED OR BAKI	G4? / S2S3 ED	6	0	0	0	0
Myriophyllum heterophyllum PONDS, DITCHES, AND SLUGGISH STREA	Broadleaf Water-milfoil	S/	G5 / S3?	1	1	0	0	0
Myriophyllum pinnatum PEATY OR MUDDY SHORES OR IN SHALLO	Cutleaf Water-milfoil	H /	G5 / SH	0	1	0	0	0
Najas gracillima MUDDY, PEATY, OR SANDY PONDS, POOL	Thread-like Naiad LS, OR SHORES.	S/	G5? / S2S3	2	0	0	0	0
Nemophila aphylla  MOIST, NUTRIENT-RICH FLOODPLAIN FOR	Small-flower Baby-blue-eyes RESTS (WEAKLEY 1998); MESIC WOODS ON LOESS SOILS.	Т/	G5 / S2?	4	0	0	0	0

Scientific name	Common name	Statuses	Ranks		# of	Осс	urrer	nce
Habitat				Ε	Н	F	Χ	Ĺ
Nestronia umbellula  Relatively mesic sites in sandhills in the upper coaforest, subxeric.	Conjurer's-nut stal plain, mesic to dry piedmont oak forests Weakley 1998); red ced	E / dar-quercus rubrum- pinus virginianum	G4 / S1	1	0	0	0	0
Oclemena acuminata	Whorled Aster	Τ/	G5 / S2S3	1	0	0	0	0
MOIST SAND IN MESOPHYTIC FOREST, WET O			0= / 0/00					
Oenothera linifolia  Rock ledges and sandy barrens (Gleason & Crond	Thread-leaf Sundrops juist 1991); prairies, and dry slopes; in KY, on thin limestone soil in c	E /	G5 / S1S2	2	3	0	1	0
Oenothera perennis	Small Sundrops	E /	G5 / S1S2	2	3	1	1	0
Dry to moist open ground, open woods, fields, and	·	Li		_	J			·
Oenothera triloba	Stemless Evening-primrose	Т/	G4 / S1S2	4	1	0	1	C
DRY WOODS, BARRENS, AND PRAIRIES, OFTE	EN CALCAREOUS; IN KY, GLADES, DRY LIMESTONE SOIL, ROC	K OUTCROPS IN FIELDS.						
Oldenlandia uniflora	Clustered Bluets	E/	G5 / S1	2	0	0	0	0
Moist sandy soils, swampy ground, shallow water	and mud flats of sloughs and reservoirs, and along creeks.							
Onosmodium molle ssp. hispidissimum	Hairy False Gromwell	E/	G4G5T4 / S1	2	3	0	0	C
Dry calcareous rocky or gravelly prairies, banks, g	lades. dry hills, woods, fields.							
Onosmodium molle ssp. occidentale	Western False Gromwell	E/	G4G5T4? / S1	1	1	0	0	(
Sandy, gravelly, or rocky prairies, glades, and ope	n woods.							
	Golden Club I COASTAL PLAIN; ALSO PEATY AND STAGNANT WATER, STRE	T / EAMBEDS IN THE PIEDMONT, AND	G5 / S2	24	2	0	0	(
BOGS AND SWAMPS IN THE MOUNTAINS (WE. Parnassia asarifolia	Kidneyleaf Grass-of-parnassus	E/	G4 / S1	5	1	0	1	(
	the mountains (Gleason & Cronquist 1991); bogs, wet woods, rocky			Ū	·	Ŭ	·	·
Parnassia grandifolia	Large-leaved Grass-of-parnassus	E/	G3 / S1	1	0	0	1	(
Wet calcareous soil in the mountains (Gleason & 0	•			•	-	_	-	
Paronychia argyrocoma	Silverling	E/	G4 / S1	2	0	0	0	(
Rocky slopes, ridges, and ledges at high altitudes.	S .			_	-	_	-	
Paxistima canbyi	Canby's Mountain-lover	Т/	G2 / S2	19	0	0	0	C
•	LLY NEAR THE TOP OF CLIFFS OR BLUFFS), ROCKY WOODS II	N THE MOUNTAINS, USUALLY ABO	VE					
Perideridia americana	Eastern Eulophus	Т/	G4 / S2	7	0	0	0	(
LOW GROUNDS, PRAIRIES, AND RICH WOODS	·							
Phacelia ranunculacea	Blue Scorpion-weed	S/	G3G4 / S3	7	0	0	0	(
RICH WOODS AND ALLUVIUM.	,	-			-	-	-	
Philadelphus inodorus	Mock Orange	T /	G4G5 / S1S2	11	0	0	0	(
LIMESTONE BLUFFS/ROCKY SLOPES, STREAT	MBANKS, AND RIVER BLUFFS; ALSO RICH FORESTS AND WOO	DLANDS (WEAKLEY 1998).						
Phlox bifida ssp. bifida  DRY SANDY SOIL ON WOODED SLOPES AND	Cleft Phlox ROCK LEDGES.	Т/	G5?T5? / S1S2	1	0	0	0	(
Phlox bifida ssp. stellaria	Starry-cleft Phlox	Ε/	G5?T3 / S1	7	0	0	0	(
Dry cliffs, bluffs, sandhills, dunes, dry sandy soil a		L /		,	J	J	J	
Platanthera cristata	Yellow-crested Orchid	T/	G5 / S1S2	12	1	1	0	C
rialailliitid Ulislala	reliow-crested Ordfild	1 /	307 3102	14	4	- 1	U	Ç

Scientific name	Common name	Statuses	Ranks		# of	Осс	0 1 6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	ıces
Habitat				Е	Н	F		U
Platanthera integrilabia Partial shade or open seepage areas both wo	White Fringeless Orchid boded and herbaceous including swamps, floodplain forests, seepage slopes.	E/C	G2G3 / S1	10	2	0	1	0
Platanthera psycodes  Wet meadows, damp thickets, alluvial or sprir	Small Purple-fringed Orchid ngy shores, low woods, wet roadsides.	E/	G5 / S1	1	2	6	0	0
Poa saltuensis  Dry or rocky woods; also, northern hardwood	Drooping Bluegrass forests, barrens and glades (Weakley 1998).	E/	G5 / S1S2	5	4	0	0	0
Podostemum ceratophyllum	Threadfoot O ROCKS IN RAPIDS OF LARGER RIVERS	S/	G5 / S3	59	6	0	2	0
Pogonia ophioglossoides  Open bogs and wet marshy meadows, grass	Rose Pogonia y seepage slopes.	E/	G5 / S1	1	2	0	0	0
Polygala cruciata  Wet pinelands, savannas, peats, and sands of	Crossleaf Milkwort on or near the coastal plain; in KY, swamps, bogs, edge of lowland woods.	E/	G5 / S1	1	3	0	0	0
Polygala paucifolia  Moist rich woods (Cronq.1991)	Gaywings	E/	G5 / S1?	1	0	0	0	0
Polygala polygama  DRY SANDY PINE-OAK WOODS AND OPEI	Racemed Milkwort NINGS ON MOUNTAIN RIDGETOPS.	Τ/	G5 / S2	11	1	0	0	0
Polymnia laevigata  Deep loess or alluvial soils in light to dense sl	Tennessee Leafcup hade of rich mesic wooded slopes possibly associated with large river valleys.	E/	G3 / S1S2	2	1	0	0	0
Pontederia cordata  MARSHES AND SHALLOW WATER, SLOUG	Pickerel-weed  GHS, OPEN SWAMPS, AND OXBOW LAKES.	Τ/	G5 / S1S2	4	2	0	0	0
Potamogeton illinoensis CALCAREOUS WATERS OF STREAMS, LA	Illinois Pondweed	S/	G5 / S2	3	0	0	0	0
Potamogeton pulcher	Spotted Pondweed	Т/	G5 / S1S2	3	0	0	0	0
Prenanthes alba  Open woodlands and thickets.	White Rattlesnake-root	E/	G5 / S1	2	3	0	0	0
Prenanthes aspera  Dry prairies and barrens, limestone glades, d	Rough Rattlesnake-root ry, open rocky woods. usually in acid soils.	E/	G4? / S1	3	2	0	0	0
Prenanthes barbata Prairies.	Barbed Rattlesnake-root	E/	G3 / S1	1	0	0	0	0
Prenanthes crepidinea RICH THICKETS AND OPENINGS; KY- RICH	Nodding Rattlesnake-root H CALCAREOUS FOREST (JULIAN CAMPBELL).	Τ/	G3G4 / S2	11	1	0	0	0
Pseudognaphalium helleri OAK, OAK-PINE, PINE WOODLANDS; ALSO	Small Rabbit-tobacco D SANDHILLS (WEAKLEY 1998).	Н/	G4G5T3? / SH	0	2	0	0	0
Psoralidium tenuiflorum  Dry prairies, open woods, and rocky banks.	Few-flowered Scurf-pea	E/	G5 / S1	0	0	1	0	0
Ptilimnium capillaceum BRACKISH TO FRESH MARSHES.	Mock Bishop's-weed	T/	G5 / S1S2	5	5	1	0	0
Ptilimnium costatum SWAMPS AND WET WOODS.	Eastern Mock Bishop's-weed	Τ/	G3G4 / S2?	0	11	0	0	0
Ptilimnium nuttallii  Damp prairies, glades, and shores, wet soil.	Nuttall's Mock Bishop's-weed	E/	G5? / S1S2	5	1	0	0	0

Scientific name	Common name	Statuses	Ranks		# of	Occ	urrer	ıces
Habitat				Е	Н	F	Χ	U
Quercus nigra  DAMP OR WET SOIL.	Water Oak	Т/	G5 / S2?	1	0	0	0	0
Ranunculus ambigens SLOUGHS, DITCHES, AND MUDDY SWAM	Waterplantain Spearwort PS (FERNALD 1970); POND MARGINS.	S/	G4 / S3	0	1	0	1	0
Rhododendron canescens Savannas and moist woods on the coastal pla	Hoary Azalea ain, swamp forests and stream banks.	E/	G5 / S1	1	0	1	0	0
Rhynchosia tomentosa	Hairy Snoutbean s, open areas (Weakley 1998); barrens; in KY, reported near a seepage swamp.	E/	G5 / S1S2	6	0	0	0	0
Rhynchospora macrostachya  Marshes, swamps, upland depression ponds,	Tall Beaked-rush , other wetlands (Weakley 1998) in KY, mud at edge of sinkhole pond.	E/	G4 / S1	1	0	0	0	0
Rhynchospora recognita SWAMPS, BOGS, AND OPEN WET SOIL IN	Globe Beaked-rush ICLUDING DITCHES AND OTHER DISTRUBED SITUATIONS.	S/	G5? / S3	12	1	1	0	0
Rubus canadensis  Forests, woodlands, grassy balds (Weakley 1	Smooth Blackberry	E/	G5 / S1?	1	3	0	0	0
Rubus whartoniae	Wharton's Dewberry SITES OR THE EDGES OF DRY WOODLANDS; ALSO OPEN OAK-HICKORY WOOD	T / DS (GLEASON &	G2Q / S2	8	0	0	0	0
Rudbeckia subtomentosa  Prairies and low grounds such as open streat	Sweet Coneflower m terrace woodlands.	E/	G5 / S1	5	0	0	0	0
Sabatia campanulata  Salt or brackish marshes, deep sands and pe	Slender Marsh Pink eat. also pinelands, swamps, and meadows.	E/	G5 / S1	2	2	0	0	0
Sagittaria graminea SWAMPS, MUD, OR SHALLOW WATER OF	Grassleaf Arrowhead  LAKESHORES, PONDS & SLOUGHS.	Τ/	G5 / S1S2	3	0	0	0	0
Sagittaria platyphylla POND AND SLOUGH MARGINS.	Delta Arrowhead	Τ/	G5 / S2?	1	1	0	0	0
Sagittaria rigida Swamps and ponds in shallow water.	Sessile-fruited Arrowhead	E/	G5 / S1	1	0	0	0	0
Salix amygdaloides ALLUVIAL SOILS IN FLOODPLAIN SWAMP	Peach-leaved Willow S. USUALLY NEAR WATER.	Η/	G5 / SH	0	2	0	0	0
Salix discolor  DAMP THICKETS OR SHORES, OFTEN IN	Pussy Willow SWAMPS; IN KY, (NON-CALCAREOUS?) STREAMSIDES (J. CAMPBELL).	Η/	G5 / SH	0	0	0	2	0
Salvia urticifolia  Woods, thickets and glades.	Nettle-leaf Sage	E/	G5 / S1	2	0	0	0	0
Sambucus racemosa ssp. pubens	Red Elderberry openings at upper elevations of mountains. also, shaded, north-facing, wooded limeston	E / e bluffs and ledges	G5T4T5 / S1S2	3	1	0	2	0
Sanguisorba canadensis  Marshes, wet meadows, and damp prairies ( KY, found on moist exposed rocky sandstone	Canada Burnet Gleason & Cronquist 1991); also fens and spray zones around waterfalls (Weakley 1998); ledge.	E / 3); peaty or boggy soils; in	G5 / S1	1	0	0	0	0
Saxifraga michauxii	Michaux's Saxifrage ODS IN THE MOUNTAINS (GLEASON & CRONQUIST 1991).	Т/	G4G5 / S2	7	0	0	0	0

Scientific name	Common name	Statuses	Ranks		# of	Occ	urrer	nces
Habitat				Е	Н	F	<u> </u>	U
Saxifraga micranthidifolia	Lettuce-leaf Saxifrage	E/	G5 / S1	4	1	0	0	0
Brooksides, wet rocks, and seeping streambanks	,		00.101					
Schisandra glabra	Bay Starvine	E/	G3 / S1	2	0	0	0	0
Mesic wooded slopes.								
Schizachne purpurascens	Purple Oat	Τ/	G5 / S2	10	0	1	0	0
MOIST, ROCKY NORTHERN HARDWOOD AND	SPRUCE FORESTS (WEAKLEY 1998); THICKETS AND WOODS.							
Schoenoplectus hallii Peaty and sandy shores.	Hall's Bulrush	E/	G2 / S1	2	0	0	0	0
Schwalbea americana	Chaffseed	H/LE	G2 / SH	0	0	0	3	0
Edges (usually) of moist to dry pinelands, oak woo	ods, or clearings (Fernald 1970); moist sandy soil (Gleason & Cronquist 1991).							
Scirpus expansus	Woodland Beakrush	E/	G4 / S1S2	1	0	0	0	0
Swamps, bogs and streamsides.								
Scirpus verecundus	Bashful Bulrush	E/	G4G5 / S1?	2	0	0	0	0
Dry oak-hickory woods and clearings. also in acid	soils of sandstone or chert areas (Steyermark 1975). in KY, sandstone slopes, slightly	y damp (per j. campbe	ell).					
Scleria ciliata var. ciliata	Fringed Nutrush	E/	G5TNR / S1?	4	1	0	1	0
Damp sandy soil and pine barrens (Gleason & Cruand on upland sandy prairies (Steyermark 1975).	onquist 1991); acid soils of sandstone, chert, or granite substrate in openings of glade in KY, boulder cobble bars.	s & rocky open woods	<b>S</b> ,					
Scutellaria arguta  Mesic wooded slopes with white oak and yellow p	Hairy Skullcap oplar.	E/	G2?Q / S1S2	1	0	0	0	0
Scutellaria saxatilis ROCKY MIXED MESOPHYTIC WOODS, TALUS	Rock Skullcap SLOPES, AND BLUFFS, USUALLY SANDSTONE SUBSTRATE.	T/	G3 / S2S3	6	3	0	0	0
Sedum telephioides  CLIFFS AND KNOBS, DRY ROCK LEDGES AND	Allegheny Stonecrop  CLIFF IN MTS.	Т/	G4 / S2	2	1	2	0	0
Sida hermaphrodita	Virginia Mallow	S/	G2 / S2S3	6	1	0	0	0
GLADES AND RIVERBANKS, MOIST ALLUVIAL	SOIL.							
Silene ovata	Ovate Catchfly	E/	G2G3 / S1	3	7	0	0	0
Dry - mesic forest, mountain summits. in il found i	n calcareous sandstone woods , exposures on the side of slopes below a cap of sand	stone.						
Silene regia	Royal Catchfly	E/	G3 / S1	6	1	1	3	0
Dry woods, barrens and prairies, and on KY roads	sides.							
Silphium laciniatum	Compassplant	N/	G5 / S2	2	0	0	0	0
Silphium laciniatum var. laciniatum	Compassplant	Т/	G5TNR / S1S2	4	0	0	0	0
Prairies including roadside and railroad remnant p		.,		•	Ü	Ū	Ŭ	Ŭ
Silphium laciniatum var. robinsonii	Compassplant	Т/	G5TNR / S2	18	0	0	0	0
PRAIRIES INCLUDING REMNANTS OF THIS FL	· ·	.,		.0	Ü	Ü	Ü	Ū
Silphium pinnatifidum  BARRENS AND PRAIRIES.	Tansy Rosinweed	S/	G3Q / S3	16	0	0	0	0
	Annalashian Dasinyyand	6.7	G3? / S3?	2.4	0	0	0	^
Silphium wasiotense DRY- MESIC (CLOSED OR OPEN) WOODLAND	Appalachian Rosinweed IS AND ADJ. ROADSIDES AND A RAVINE IN MIX MESOPHYTIC FOREST.	S/	G0! / G0!	34	U	2	0	0
Solidago albopilosa	White-haired Goldenrod	T/LT	G2 / S2	36	0	5	8	0
Behind dripline in sandstone rockhouses and ledg	ges of sandstone cliffs.							

Scientific name	Common name	Statuses	Ranks		# of	Occ	ırrer	ıce
Habitat				Е	Н	F	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
Solidago buckleyi WOODS AND BLUFFS.	Buckley's Goldenrod	SI	G4 / S2S3	4	0	0	0	C
Solidago curtisii RICH OR OPEN WOODS, CHIEFLY IN TI	Curtis' Goldenrod HE UPLANDS; BASE OF BLUFFS AND ALONG BLUFF LEDGES (STEYERMARK 19	T / 975).	G5T4T5 / S2S3	11	1	0	0	(
Solidago gracillima SWAMPS AND OTHER MOIST PLACES(	Southern Bog Goldenrod CRONQUIST); IN KY, OPEN ROCKY RIVER BANKS.	SI	G4? / S2?	6	0	0	0	(
Solidago puberula	Downy Goldenrod S, ROCKY BARRENS, ETC.; ALSO BOGS, WET MEADOWS, AND WET PASTURES	S / S (WEAKLEY 1998).	G5 / S2	6	2	1	0	(
Solidago randii ROCK CREVICES AND SAND DUNES, D	Rand's Goldenrod PRY, OFTEN CALCAREOUS LEDGES, ROCKY BANKS, AND BOULDER-COBBLE B	S/ BARS.	G5T5? / S3	33	0	0	0	(
Solidago roanensis FORESTS OF MOUNTAIN SUMMITS; AL	Roan Mountain Goldenrod SO WOODLANDS AND ROADBANKS (WEAKLEY 1998).	Τ/	G4G5 / S1S2	4	0	1	0	(
Solidago shortii Glades, wood edges, along old bison trace	Short's Goldenrod e, old fields, and rock cuts along roads.	E/LE	G1 / S1	12	0	0	3	(
Sparganium eurycarpum  Stream and slough margins; also reported	Large Bur-reed	E/	G5 / S1?	1	0	0	0	(
Sphenopholis pensylvanica	Swamp Wedgescale ENERALLY IN WEEDY OR BRUSHY GROWTH ALONG THE MARGINS OF SLOUG	S / HS, MARSHES AND OTHER	G4 / S1S2	4	1	2	0	
Spiraea alba  Wet meadows, swamps, and shores (Glea	Narrow-leaved Meadow-sweet ason & Cronquist 1991).	E/	G5 / S1	1	0	0	1	
Spiraea virginiana	Virginia Spiraea	T/LT	G2 / S2	21	0	2	0	
Riverbanks, riverside shrub thickets where	e occasionally flood-scoured (Weakley 1998) to deter arboreal establishment.							
Spiranthes lucida  DAMP WOODS, MARSHES, AND WET S	Shining Ladies'-tresses HORES (GLEASON & CRONQUIST 1991); ALSO OCCURS IN WET DISTURBED A	T / REAS INCLUDING PASTUR	G5 / S2S3 ES.	12	0	3	0	
Spiranthes magnicamporum  CALCAREOUS SOIL IN DRY, GRASSY P  THE WESTERN PORTION OF THE RANG	Great Plains Ladies'-tresses PRAIRIES (LUER 1975) AND GLADES; ALSO REPORTED FROM SEEPY AND OTH GE.	T / ER OPEN WETLAND SITES	G4 / S2 IN	17	0	0	0	
Spiranthes ochroleuca	Yellow Nodding Ladies'-tresses ELDS, AND MEADOWS, MEDLEY DESCRIBES DRY-MESIC WOODS.	Τ/	G4 / S2?	1	2	0	0	
Spiranthes odorata Swamps and marshes (Weakley 1998); in	Sweetscent Ladies'-tresses KY, open herbaceous edge of swamp and a wet pasture but also known from swamp	E/	G5 / S1	1	0	2	0	
Sporobolus clandestinus PRAIRIES, LIMESTONE GLADES, LIMES	Rough Dropseed STONE CLIFF EDGES, ALONG RAILROADS.	Τ/	G5 / S2S3	7	0	0	0	
Sporobolus heterolepis  Dry open ground, prairies, glades and woo	Northern Dropseed odland openings near glades, rocky cliffs.	E/	G5 / S1	3	0	0	0	
Stachys eplingii	Epling's Hedgenettle ummit; also mesic forests, bogs & wet meadows (Weakley 1998).	H /	G5 / SH	0	1	0	0	
Stellaria fontinalis	Water Stitchwort CLIFFS ABOVE STREAMS IN FULL SUN OR LIGHT SHADE. SPRINGS, RILLS AND	T / WET ROCKS (FERNALD 19	G3 / S2 970).	9	0	1	3	
Stellaria longifolia MOIST AND WET WOODLANDS, GRASS	Longleaf Stitchwort SY STREAMBANKS, WET MEADOWS. ALSO FRESHWATER TIDAL MARSHES (WI	S / EAKLEY 1998).	G5 / S2S3	3	0	0	0	

Scientific name	Common name	Statuses	Ranks		# of	Осс	urrer	ıces
Habitat				Е	Н	F	0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 2	U
Stenanthium gramineum  MESIC FORESTS ON RIVER BLUFFS AND IN S RIVERBANKS.	Eastern Featherbells EEPS AND RIDGETOPS, EPHEMERAL STREAMBANKS, WET BOULDER-COBB	T / BLE BARS AND	G4G5 / S2S3	2	0	0	0	0
Streptopus roseus var. perspectus Rich mountain woods.	Rosy Twisted-stalk	H /	G5T5? / SH	0	5	0	0	0
Symphoricarpos albus Calcareous ledges and woodlands, barrens, and g	Snowberry gravels.	E/	G5 / S1	9	0	0	0	0
Symphyotrichum concolor DRY SANDY OPEN OAK-PINE WOODS AND BA	Eastern Silvery Aster ARRENS, AND ROADSIDES.	Τ/	G4? / S2	17	3	1	0	0
Symphyotrichum drummondii var. texanum BOTTOMLANDS AND OPEN WOODS.	Hairy Heart-leaved Aster	H /	G5TNR / SH	0	1	0	0	0
Symphyotrichum pratense OPEN DRY WOODS, BLUFFS AND PRAIRIES. 0	Barrens Silky Aster DCCURS WITH PRAIRIE VEGETATION AND IN CEDAR GLADES IN KY.	S/	GNR / S3	17	0	0	0	0
Talinum calcaricum Limestone glades.	Limestone Fameflower	E/	G3 / S1	2	0	0	0	0
Talinum teretifolium	Roundleaf Fameflower  allow soil, especially where periodically wet by seepage, often in mats of moss (We	E / eakley 1998); in KY, flat	G4 / S1	11	0	0	1	0
Taxus canadensis	Canadian Yew & CRONQUIST 1991) IN MOST OF RANGE; IN KY, FOUND ON COOL MESIC ST	T / TREAMBANKS AND BA	G5 / S2S3 SES	22	0	2	0	0
Tephrosia spicata Sandy fields, open woods, and barrens.	Spiked Hoary-pea	E/	G4G5 / S1S2	13	1	1	0	0
Thaspium pinnatifidum	Cutleaf Meadow-parsnip NDS OVER CALCAREOUS ROCK (WEAKLEY 1998).	Τ/	G2G3 / S2S3	15	0	0	1	0
Thermopsis mollis  Dry wood slopes and ridges.	Soft-haired Thermopsis	E/	G4? / S1	4	0	0	0	0
Thuja occidentalis	Northern White Cedar	Т/	G5 / S2S3	22	5	0	0	0
MOIST OR WET SOIL, OFTEN IN SWAMPS (GL	EASON & CRONQUIST 1991); ALSO DRY LIMESTONE, DOLOSTONE, AND CAL (LEY 1998); IN KY OCCURS ALONG ROCKY OPEN OR WOODED RIVERBANKS	CAREOUS SANDSTO	NE		Ü	ŭ	ŭ	v
Toxicodendron vernix	Poison Sumac	E/	G5 / S1	2	0	0	0	0
In peaty habitats, sandhill seepage and mountain	bogs (Weakley 1998); floodplain forests.							
Tragia urticifolia	Nettle-leaf Noseburn	E/	G5 / S1?	1	0	0	0	0
Dry woodlands and rock outcrops, particularly ove limestone point (J. Campbell).	er mafic or calcareous rocks (Weakley 1998); dry, sandy soil; in KY, natural rocky op	penings on sw-facing						
Trepocarpus aethusae  MARGINS OF SWAMP FORESTS AND SANDY F	Trepocarpus RIVER BOTTOMS.	S/	G4G5 / S3	29	1	0	0	0
Trichostema setaceum  Dry upland woods (oak-hickory), dry-moist old field 1998).	Narrowleaved Bluecurls ds, and disturbed areas; also thin soils around rock outcrops and dry sandy soils of	E / the coastal plain (Weak	G5 / S1 ley	3	0	0	2	0
Trientalis borealis	Northern Starflower	E/	G5 / S1	2	0	0	0	0
	subalpine regions; in KY, dry hemlock sites at cliff base.	· ·		_	-	-	-	-

Scientific name	Common name	Statuses	Ranks		# of	Осс	urrer	ices
Habitat				Е	<u>H</u>	F	0 31 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0	U
Trifolium reflexum	Buffalo Clover	E /	G5 / S1S2	3	3	2	0	0
	ld 1970); also prairies (Gleason & Cronquist 1991); a weed in much	· ·	G3 / S2S3		^		04	0
Trifolium stoloniferum  Old trails, traces, and roads; grazed bottomlands, streafiltered to partial light.	Running Buffalo Clover ambanks, lawns, shoals, and cemeteries with native vegetation, pra	T / LE airies, well-drained and mesic soils,		55	0	4	31	0
Trillium nivale Rich moist woods (Gleason & Cronquist 1991)	Snow Trillium	E/	G4 / S1	3	0	0	0	0
Trillium pusillum  Depression swamps.	Least Trillium	E/	G3 / S1	7	1	0	0	0
Trillium undulatum	Painted Trillium	Τ/	G5 / S2	7	6	0	0	0
MESIC RAVINE FORESTS, UPPER ELEVATON MES	SIC HEMLOCK FORESTS, SEEPS IN MESIC FORESTS AND AN	OAK-CHESNUT FOREST.						
Triplasis purpurea DRY (ALMOST PURE) SAND, SANDY RIVERBANKS	Purple Sandgrass	H /	G4G5 / SH	0	1	0	0	0
Ulmus serotina UPLAND TO BOTTOMLAND LIMESTONE WOODS, A	September Elm ALLUVIAL TERRACES.	S/	G4 / S3	9	0	0	0	0
Utricularia macrorhiza  Deep or shallow quiet waters.	Greater Bladderwort	E/	G5 / S1	1	0	0	0	0
Vallisneria americana SHALLOW QUIET WATERS AND SHORES.	Eelgrass	S/	G5 / S2S3	16	0	0	0	0
Vernonia noveboracensis  LOW WET WOODS AND MARSHES, WET ROADSIE	New York Ironweed DES, STREAMBANKS.	S/	G5 / S3	25	2	0	1	0
Viburnum molle  ROCKY DRY TO SOMEWHAT DRY WOODS USUAL	Softleaf Arrowwood	Т/	G5 / S3?	14	0	0	0	0
Viburnum rafinesquianum var. rafinesquianum DRY, ESP. CALCAREOUS WOODS.	Downy Arrowwood	T/	G5T4T5 / S2?	6	5	0	0	0
Viola septemloba var. egglestonii CALCAREOUS BARRENS, GLADES AND DRY PRAI	Eggleston's Violet RIES ON SILURIAN AND MISSISSIPPIAN LIMESTONES.	\$/	G4 / S3	34	7	2	2	0
Viola walteri DRY OR MOIST WOODS AND LEDGES (GLEASON	Walter's Violet & CRONQUIST 1991)	Τ/	G4G5 / S2	9	0	0	0	0
Vitis labrusca	Northern Fox Grape	S/	G5 / S2S3	1	5	0	1	0
	Sand Grape Y HILLS AND ROCKS (GLEASON & CRONQUIST 1991); ALONG EAS (WEAKLEY 1998); IN KY, COBBLE BANKS OF ROCKCASTI		G3 / S2	18	0	0	0	0
Woodsia scopulina ssp. appalachiana	Appalachian Woodsia	H /	G4 / SH	0	1	0	0	0
Xyris difformis  Wet sands or sandy peats of flatwood pond margins, la	Carolina Yellow-eyed-grass akeshores, but more often in allluvial situations; also savannas and	E / roadside ditches (Weakley 1998).	G5 / S1?	1	0	0	0	0
Zizaniopsis miliacea SWAMPS AND MARGINS OF STREAMS.	Southern Wild Rice	Т/	G5 / S1S2	5	1	0	0	0

Gastropods

Scientific name	Common name	Statuses	Ranks		# of	Оссі	ırren	ces
Habitat				Е	Н	F	Χ	U
	Pine Mountain Tigersnail PINE MOUNTAIN (HUBRICHT 1985). SEEMS MOST ACTIVE ON THE SURFACE /ELY COOL, BUT BURROWS INTO ROTTING WOOD AND SOIL DURING HOT		GNR / S2	9	2	0	0	0
	Shaggy Cavesnail I RUNNING WATER OF SRINGS AND STREAMS IN CAVES (HUBRICHT 1963 O THEIR SPRING ORIFICES, AND WAS TAKEN ON THE UNDERSIDES OF SU		G2 / S2 KS	14	0	2	0	0
	Queen Crater GROUND. ALSO FOUND ON THE BOLES OF TREES IN WET WEATHER (HUE D IN ACID WOODLANDS, USUALLY IN MATURE FORESTS ON RELATIVELY		GNR / S1S2	9	1	0	0	0
	Clifty Covert DED HILLSIDES AND IN RAVINES (HUBRICHT 1985). IN KENTUCKY, MACGR ESTED SLOPES ADJACENT TO CLIFFLINES, NEAR ROCK OUTCROPS, OR II		GNR / S2 MM)	15	4	0	0	0
Glyphyalinia raderi A CALCIPHILE. PROBABLY A BURROWER. THE FEW 1985).	Maryland Glyph SPECIMENS COLLECTED ACROSS ITS RANGE WERE FOUND AMONGST R	S / ROCKS (HUBRICH	G2 / S1 T					
Glyphyalinia rhoadsi LEAF LITTER IN UPLAND WOODS (HUBRICHT 1985).	Sculpted Glyph	Τ/	G5 / S1	7	3	0	0	0
Helicodiscus notius specus KNOWN ONLY FROM THE TOTAL DARKNESS OF CA	A Snail VES WHERE IT FEEDS ON CAVE CRICKET GUANO (HUBRICHT 1985).	Т/	G5TNR / S1	0	0	2	0	0
Helicodiscus punctatellus	Punctate Coil	S/	GNR / S1	1	0	0	0	0
Leptoxis praerosa  CALL (1895) INDICATED THAT IN THE OHIO RIVER A  ROCK OR ROCK WITH ABUNDANT "CONFERVOID" V	Onyx Rocksnail I THE FALLS IT OCCURRED IN THE GREATEST PROFUSION WHERE THE E EGETATION.	S / SOTTOM IS CLEAN	G5 / S3S4 N	11	3	0	3	0
Lithasia armigera  BARS AND POOLS WITH SAND, GRAVEL, AND ROCK MUD, PARTIALLY BURIED LOGS, AND ROCK RIPRAF	Armored Rocksnail SUBSTRATES (KNPC), SLOPING ROCK OUTCROPS WITH POCKETS OF SA (SICKEL 1988).	S / AND, GRAVEL ANI	G3G4 / S3S4	13	0	0	4	0
Lithasia geniculata	Ornate Rocksnail	S/	G3G4 / S1	1	0	0	0	0
Lithasia verrucosa  OBSERVATIONS ON THE HABITAT INCLUDE SPECIN SUBSTRATES (HAAG AND PALMER-BALL, PERS COI	Varicose Rocksnail ENS TAKEN FROM RECENTLY EXPOSED BARS AND POOLS WITH SAND, C //M).	S / GRAVEL, AND RO	G3G4 / S3S4 CK	8	0	0	0	0
Mesomphix rugeli UNDER LEAF LITTER ON WOODED HILLSIDES OR O	Wrinkled Button N MOUNTAINS (HUBRICHT 1985).	Т/	G3G4 / S2	10	1	0	0	0
Neohelix dentifera FOUND UNDER LEAF LITTER AND ABOUT LOGS ANI 1985).	Big-tooth Whitelip D ROCKS ON WOODED MOUNTAINSIDES, OFTEN WHERE THE SOIL IS QUIT	T / TE ACID (HUBRIC	G4 / S2 HT	14	1	0	0	0
Paravitrea lapilla UNDER MOIST LEAF LITTER ON WOODED HILLSIDE	Gem Supercoil S AND RAVINES (HUBRICHT 1985).	Т/	GNR / S1	0	0	0	0	3
Patera panselenus UNDER ROCKS AND LOGS ON WOODED FLOODPLA	Virginia Bladetooth INS, HILLSIDES, AND RAVINES (HUBRICHT 1985).	S/	G3G4 / S1	2	1	0	0	0

Scientific name	Common name	Statuses	Ranks		# of	Оссі	urren	ices
Habitat				E	Н	F	x 0 2 0 0 0 0 3 22 9 24 28	U
Pilsbryna sp. 1 LITTER OF THE HIGHER ELEVATIONS	A Snail S OF BIG BLACK MOUNTAIN (PETRANKA 1982).	E/	GNR / S1	5	0	0	0	0
Pleurocera curta	Shortspire Hornsnail	S/	G2 / S2	0	0	0	2	0
Rabdotus dealbatus A CALCIPHILE AND IS FOUND CRAWL	Whitewashed Rabdotus ING ON THE GROUND OR ON LOW VEGETATION IN WET WEATHER (HUBR	T / RICHT 1985).	GNR / S1S2	5	4	3	0	0
Vertigo bollesiana FOUND IN LEAF LITTER ON WOODED	Delicate Vertigo HILLSIDES AND IN MARSHES (HUBRICHT 1985).	E/	G3 / S1	3	0	0	0	0
Vertigo clappi FOUND IN LEAF LITTER AND MOSS O	Cupped Vertigo N WOODED HILLSIDES (HUBRICHT 1985).	E/	G2 / S1	1	0	0	0	0
Vitrinizonites latissimus UNDER LEAF LITTER OR CRAWLING O OCCUR BELOW 1,000 FEET IN THE OL	Glassy Grapeskin ON THE GROUND IN WET WEATHER. USUALLY FOUND ABOVE 2,000 FEET UTLYING HILLS.	T / IN THE MOUNTAINS, BUT MAY	G4 / S2	14	1	0	0	0
Webbhelix multilineata  LOW, WET PLACES, IN MARSHES, FLO  Freshwater Mussels	Striped Whitelip OODPLAINS, MEADOWS, AND MARGINS OF LAKES AND PONDS, UNDER LI	T / TTER AND DRIFT (HUBRICHT 198	GNR / S1S2 35).	3	0	1	0	0
Alasmidonta atropurpurea  MEDIUM-SIZE, LOW TO MODERATE G	Cumberland Elktoe GRADIENT, HIGH QUALITY STREAMS USUALLY IN AREAS OF NEAR ZERO FL BULDER SUSTRATE WHERE IT IS USUALLY PARTLY BURIED IN A SAND, GR		G1G2 / S1 KER	47	5	0	3	0
	Elktoe STREAMS BUT MORE TYPICAL OF SMALLER STREAMS (BUCHANAN 1980, WILSON AND CLARK 1914). SOMETIMES FOUND IN LAKES CONNECTED TO		G4 / S2 ALIE	62	26	15	22	0
Anodontoides denigratus	Cumberland Papershell	E/	G1 / S1	24	0	1	9	0
INHABITS SAND, SILT, MUD, AND SMA MEDIUM-SIZED STREAMS.	ALL GRAVEL OFTEN NEAR COBBLE AND BOULDERS IN POOLS AND RUNS	WITH SLOW CURRENT IN SMALL	. ТО					
Cumberlandia monodonta	Spectaclecase	E/C	G2G3 / S1	13	0	14	24	0
	GE RIVERS WHERE IT INHABITS SUBSTRATE RANGING FROM SILT TO RUE DEEP WATER (AHLSTEDT 1984, BOGAN AND PARMALEE 1983, BUCHANAN							
Cyprogenia stegaria	Fanshell	E/LE	G1 / S1	95	24	18	28	0
	IVERS WITH MODERATE TO STRONG CURRENT IN COARSE SAND AND GR VAN DER SCHALIE 1944, NEEL AND ALLEN 1964, PARMALEE 1967, JOHNS							
Epioblasma brevidens	Cumberlandian Combshell	E/LE	G1 / S1	14	0	15	27	0
	S AND RIVERS WITH CLEAN-SWEPT RUBBLE, GRAVEL, AND SAND SUBSTR PARMALEE 1983, AHLSTEDT 1984, GORDON NO DATE). ALHSTEDT (1984) II		4,					
Epioblasma capsaeformis	Oyster Mussel	E/LE	G1 / S1	0	0	0	33	0
	OW RIFFLES OR SHOALS OF RUBBLE, GRAVEL AND SAND (WILSON AND C IT MAY LIVE BENEATH THE SURFACE OF THE SUBSTRATE DURING CERT	•	,					

Scientific name	Common name	Statuses	Ranks		# of	Оссі	ırren	ces
Habitat				E	Н	F	Χ	U
	Tan Riffleshell TED HEADWATERS AND GRADED INTO E. FLORENTINA (OR E. FLORENTI GER RIVERS (BOGAN AND PARMALEE 1983, ORTMANN 1924, STANSBERF			5	0	0	3	0
Epioblasma obliquata obliquata INHABITS MEDIUM TO LARGE RIVERS I 1967, WILSON AND CLARK 1914).	Catspaw IN RIFFLES, SHOALS, AND/OR DEEP WATER IN SWIFT CURRENT (BOGAN	E / LE N AND PARMALEE 1983, PARMALE	G1T1 / S1 E	2	7	0	9	0
Epioblasma torulosa rangiana	Northern Riffleshell	E/LE	G2T2 / S1	2	13	15	13	0
RIFFLES OR SHOALS WITH CURRENT A WATTERS 1987).	AND SUBSTRATE OF SAND AND/OR GRAVEL IN SMALL TO MODERATE-SI	IZE RIVERS (CLARKE 1981,						
Epioblasma triquetra	Snuffbox	E/	G3 / S1	61	17	48	25	0
	TO LARGE RIVERS GENERALLY ON MUD, ROCKY, GRAVEL, OR SAND SU SON 1978, MURRARY AND LEONARD 1962, PARMALEE 1967). OFTEN DEEF							
Fusconaia subrotunda subrotunda	Longsolid	S/	G3T3 / S3	111	13	24	28	0
GRAVEL BARS AND DEEP POOLS IN LA SCHALIE 1944, NEEL AND ALLEN 1964,	ARGE RIVERS AND LARGE TO MEDIUM-SIZED STREAMS (AHLSTEDT 1984 PARMALEE 1967).	I, GOODRICH AND VAN DER						
Lampsilis abrupta	Pink Mucket	E/LE	G2 / S1	20	10	10	24	0
	FROM SILT TO BOULDERS, BUT APPARENTLY MORE COMMONLY FROM ITH CURRENT VELOCITY RANGING FROM ZERO TO SWIFT (AHLSTEDT 19							
Lampsilis ovata	Pocketbook	E/	G5 / S1	57	12	10	52	0
	S (CLENCH AND VAN DER SCHALIE 1944, PARMALEE 1967, STANSBERY 1 SAND, OR EVEN MUD (PARMALEE 1967, JOHNSON 1970, GORDON AND L	**						
Lasmigona compressa	Creek Heelsplitter	E/	G5 / S1	6	4	0	0	0
·	ALL STREAMS, AND HEADWATERS OF LARGER RIVERS IN SAND, FINE GF FFLES (CLARKE 1981; GOODRICH AND VAN DER SCHALIE 1944; PARMALE	·						
Lexingtonia dolabelloides	Slabside Pearlymussel	X/C	G2 / SX	0	0	0	2	0
COARSE SAND TO HETEROGENOUS M CURRENT (GORDON AND LAYZER 1989	IIXTURES OF LARGE PARTICLE-SIZE IN SMALL STREAMS TO LARGE RIVE 9).	ERS WITH MODERATE TO SWIFT						
Obovaria retusa	Ring Pink	E/LE	G1 / S1	8	6	11	39	0
LARGE RIVER SPECIES THAT INHABITS AND ALLEN 1964, STANSBERY 1976).	S GRAVEL AND SAND BARS (BOGAN AND PARMALEE 1983, GOODRICH A	ND VAN DER SCHALIE 1944, NEEL	-					
Pegias fabula	Littlewing Pearlymussel	E/LE	G1 / S1	32	4	4	31	0
	TH COOL WATER. FOUND IN POOLS AND RIFFLES ON AND SOMETIMES E S (BOGAN AND PARMALEE 1983, DISTEFANO 1984, HARKER ET AL. 1980,		)					
Plethobasus cooperianus	Orangefoot Pimpleback	E/LE	G1 / S1	16	4	2	35	0
USUALLY FOUND IN LARGE RIVERS IN 1986).	SAND AND GRAVEL SUBSTRATES (AHLSTEDT 1983, BOGAN AND PARMA	ALEE 1983, MILLER, A.C. ET AL.						
Plethobasus cyphyus	Sheepnose	E/C	G3 / S1	104	22	4	18	0
USUALLY FOUND IN LARGE RIVERS IN PARMALEE 1967, GORDON AND LAYZE	CURRENT ON MUD, SAND, OR GRAVEL BOTTOMS AT DEPTH OF 1-2 MET R 1989).	TERS OR MORE (BAKER 1928,						

Scientific name	Common name	Statuses	Ranks		# of	Оссі	ırren	ces
Habitat				E	Н	F	Χ	U
	Clubshell MALL STREAMS AND RIVERS (GOODRICH AND VAN DER SCHALIE 194 ATLY LARGE RIVERS. OFTEN DEEPLY BURIED IN THE SUBSTRATE A		G2 / S1 H IN	7	13	9	44	0
	Tennessee Clubshell IS AND LARGE RIVERS (E.G., TENNESSEE AND CUMBERLAND RIVER ER HEADWATER STREAMS (AHLSTEDT 1984). PRESENT IN SAND/GRA			19	7	21	17	0
Pleurobema plenum MEDIUM TO LARGE RIVERS IN SAND, G AND ALLEN 1964).	Rough Pigtoe RAVEL, AND COBBLE SUBSTRATES (AHLSTEDT 1984, BOGAN AND P.	E / LE PARMALEE 1983, CLARKE 1981, NEEL	G1 / S1	32	4	5	12	0
Pleurobema rubrum	Pyramid Pigtoe	E/	G2 / S1	44	6	14	43	0
INHABITS MEDIUM TO LARGE RIVERS A LEONARD 1962, PARMALEE ET AT. 1982	AND USUALLY OCCURS IN SAND OR GRAVEL BOTTOMS IN DEEP WA <sup>*</sup> 2).	TERS (AHLSTEDT 1984, MURRAY AN	D					
	Fat Pocketbook RIVERS OFTEN AROUND ISLAND AND BACK CHANNELS, AND SOMET SILT AND MUD IN FLOWING WATER AT DEPTHS OF A FEW INCHES I		G1 / S1	11	6	3	2	0
	Bleufer FAIRLY QUIET POOLS (MURRAY AND LEONARD 1962). IN MISSOURI E OCCASIONALLY INTERSPERSED (OESCH 1984). IN THE ST. FRANCIS	,		5	1	0	0	0
	Fluted Kidneyshell EAM AND RIVERS WHERE IT OCCUPIES CLEAN SWEPT RUBBLE, GRA MODERATE TO SWIFT CURRENT (AHLSTEDT 1984, BOGAN AND PAR	· ·	G2G3 / S1	35	2	16	28	0
Quadrula cylindrica cylindrica SMALL TO LARGE RIVERS WITH SAND, 1967, BOGAN AND PARMALEE 1983).	Rabbitsfoot GRAVEL, AND COBBLE AND MODERATE TO SWIFT CURRENT, SOME	T / TIMES IN DEEP WATER (PARMALEE	G3T3 / S2	56	9	16	36	0
	Salamander Mussel SUCH AS SOFT MUD AND/OR GRAVEL, AND/OR UNDER FLAT STONE BE SWIFT (BAKER 1928, BUCHANAN 1980, GOODRICH AND VAN DER		G3 / S2S3	31	13	22	1	0
	Purple Lilliput OODRICH AND VAN DER SCHALIE 1944, PARMALEE 1967, STANSBEF N MUD BUT RELATED THAT SAND OR FINE GRAVEL BEDS IN SHALLO		G2 / S1 EE	21	10	21	16	0
Toxolasma texasiensis	Texas Lilliput	E/	G4 / S1	10	0	1	0	0
LOW GRADIENT STREAMS OR SLOUGH 1967, CUMMINGS AND MAYER 1992).	IS WITH SOFT BOTTOMS (I.E., MUD OR SMALL SAND OR GRAVEL) AN	ID ALSO RESERVOIRS (PARMALEE						
	Rayed Bean VERS WHERE IT LIVES DEEPLY BURIED IN SAND AND GRAVEL BOUN ARMALEE 1983; ORTMANN 1925, 1926; PARMALEE 1967; STANSBERY		G1G2 / SX	0	0	0	9	0
Villosa lienosa INHABITS SMALL TO MEDIUM-SIZED RIV LAYZER 1989).	Little Spectaclecase /ERS, USUALLY IN SHALLOW WATER ON A SAND/MUD/DETRITUS BO	S / DTTOM (PARMALEE 1967, GORDON A	G5 / S3S4 ND	52	32	40	9	0
Data Current as of January 2005					_	0-		

Scientific name	Common name	Statuses	Ranks		# of	Оссі	ırren	ices
Habitat				Е	Н	F	Χ	U
	Kentucky Creekshell IN SIZE FROM SMALL (1ST ORDER) SPRING FED STRE S SOMETIMES HAVE NO FLOW. SUBSTRATES RANGE		G2 / S2 ED	32	3	32	1	1
Villosa trabalis SAND OR GRAVEL IN SMALL TO MEDIUM-SIZED IN THE MAINSTREAM CUMBERLAND RIVER (CLA	Cumberland Bean STREAMS WITH SLOW TO MODERATE CURRENT, BUT RKE 1981, BOGAN AND PARMALEE 1983).	E / LE ALSO HISTORICALLY KNOWN FROM BAR	G1 / S1 S	97	13	52	26	0
TO MEDIUM-SIZED STREAMS (AHLSTEDT 1984, 0	Mountain Creekshell B IN AND ADJACENT TO SHALLOW RIFFLES AND SHOA GORDON AND LAYZER 1989).	T / LS IN SLOW TO FAST CURRENT OF SMAL	G4 / S2 L	14	0	12	1	0
Arachnids  Hesperonemastoma inops  CAVE OBLIGATE SPECIES.	A Cave Harvestman	S/	G1G2 / S1S2	0	1	0	0	0
Kleptochthonius attenuatus A CAVE OBLIGATE SPECIES.	A Cave Pseudoscorpion	Т/	G1G2 / S1	0	1	0	0	0
Kleptochthonius cerberus CAVE OBLIGATE SPECIES.	A Cave Pseudoscorpion	S/	G1G2 / S1S2	0	1	0	0	0
Kleptochthonius erebicus CAVE OBLIGATE.	A Cave Pseudoscorpion	Т/	G1G2 / S1S2	0	1	0	0	0
Kleptochthonius hageni CAVE OBLIGATE SPECIES.	A Cave Pseudoscorpion	S/	G1G2 / S1S2	0	2	0	0	0
Kleptochthonius hubrichti CAVE OBLIGATE.	A Cave Pseudoscorpion	Τ/	G1G2 / S1S2	0	1	0	0	0
Kleptochthonius microphthalmus CAVE OBLIGATE SPECIES.	A Cave Pseudoscorpion	Τ/	G1G2 / S1S2	0	1	0	0	0
Tyrannochthonius hypogeus  APPARENTLY A CAVE OBLIGATE SPECIES.	A Cave Pseudoscorpion	S/	G1G2 / S1S2	0	1	0	0	0
Crustaceans  Barbicambarus cornutus  LIVES UNDER OR NEAR LARGE, FLAT COBBLES	Bottlebrush Crayfish OR BOULDERS IN STREAMS.	8/	G3G4 / S2	28	4	0	0	0
Bryocamptus morrisoni elegans TROGLOBITIC COPEPOD THAT INHABITS POOLS	A Copepod S (LEWIS 1993).	Τ/	G3G4T3T4 / S1	0	1	0	0	0
Caecidotea barri CAVE ENVIRONMENT.	Clifton Cave Isopod	E/	G1G3 / S1	1	0	0	0	0
Cambarellus puer  CYPRESS SWAMPS, STREAMS, AND LOWLANDS  VEGETATION (PAGE 1985).	Swamp Dwarf Crayfish 6 (DRAINED WETLANDS) ON THE MISSISSIPP ALLUVIAI	E / L PLAIN, USUALLY AMONG LIVING OR DEA	G4G5 / S1 D	0	0	2	0	0
Cambarellus shufeldtii INHABITS SWAMPS, SLOUGHS, DITCHES, LAKES TO SURVIVE DROUGHTS (PAGE 1985).	Cajun Dwarf Crayfish 8, PONDS, AND SLUGGISH STREAMS (HOBBS 1989) ON	S / I THE COASTAL PLAIN, AND MAY BURROW	G5 / S2 /	1	5	2	1	0
Cambarus friaufi Swift parts of small streams.	Hairy Crayfish	S/	G3G4 / S3S4	4	1	0	0	0

Scientific name	Common name	Statuses	Ranks		# of	Осс	currence	ıces
Habitat				E	Н	F	Χ	U
Cambarus parvoculus ROCKY STREAMS (HOBBS 1989).	Mountain Midget Crayfish	Т/	G4 / S2	12	2	0	0	0
Cambarus veteranus STREAMS (HOBBS 1989).	Big Sandy Crayfish	SI	G3G4 / S1	2	3	0	0	0
Gammarus bousfieldi POOLS OR AREAS WITH LITTLE CURRENT	Bousfield's Amphipod , DEEP MUD-DETRITUS BOTTOMS, AND BEDS OF EMERGENT VEGETA	E / TION (COLE AND MINCKLEY 19	G1 / S1 61).	3	2	0	0	0
Orconectes australis packardi SUBTERRANEAN STREAMS AND POOLS (H	Appalachian Cave Crayfish HOBBS 1989).	Т/	G4T3 / S2S3	5	14	0	0	0
Orconectes bisectus  MEDIUM-SIZED STREAMS (HOBBS 1989). A BOTTOM (RHOADES 1944).	Crittenden Crayfish AT THE TYPE LOCALITY (BRUSHY FORK), SPECIMENS WERE COLLECTE	T / ED FROM A MUD AND RUBBLE	G2 / S1	3	3	0	0	0
Orconectes burri  Small to medium-sized stream with sand and g (Taylor and Sabaj 1998).	Blood River Crayfish gravel substrates, most commonly in woody debris piles or woody vegetation r	T / root masses along stream banks	G2G3 / S2	6	0	0	0	0
Orconectes inermis inermis SUBTERRANEAN WATERS (HOBBS 1989).	Ghost Crayfish	S/	G4T3T4 / S3	23	18	3	0	0
Orconectes jeffersoni FLAT COBBLE AND BOULDER STREWN ST	Louisville Crayfish REAMS.	E/	G1 / S1	3	10	0	0	0
Orconectes lancifer  OXBOW LAKES AND STREAMS ON THE GU CYPRESS (BURR AND HOBBS 1984).	Shrimp Crayfish JLF COASTAL PLAIN (PAGE 1985), WHERE IT LIVES AMONG ORGANIC D	E / DEBRIS, USUALLY NEAR BALD	G5 / S1	3	5	0	0	0
Orconectes palmeri palmeri SWIFT, DEBRIS-FILLED RIFFLES OVER MIX	A Crayfish (ED SAND, MUD, AND GRAVEL BOTTOMS (BURR AND HOBBS 1984)	E/	G5T5 / S1	6	0	0	0	0
Orconectes pellucidus SUBTERRANEAN WATERS (HOBBS 1976).	Mammoth Cave Crayfish	SI	G3 / S3	16	6	2	0	0
	Mammoth Cave Shrimp (I.E., LOWEST LEVEL) AND ASSOCIATED TRIBUTARIES CHARACTERIZEI IMENTS, AND ABUNDANT QUANTITIES OF ORGANIC MATERIAL (USFWS		G1 / S1	15	0	0	0	0
Procambarus viaeviridis  CYPRESS SWAMPS AND FLOODPLAIN STF  DEBRIS-FILLED POOLS IN GULF COASTAL	Vernal Crayfish REAMS ON THE COASTAL PLAIN (PAGE 1985). BURR AND HOBBS (1984) PLAIN STREAMS.	T / ) COLLECTED SPECIMENS FRO	G5 / S1 0M	5	1	0	0	0
Stygobromus vitreus SMALL DRIP AND SEEP POOLS IN CAVES,	An Amphipod BUT OCCASIONALLY IS FOUND IN SURFACE SEEPS IN THE MAMMOTH	S / I CAVE AREA (HOLSINGER 1972	G3G4 / S1 2).	6	1	0	0	0
Diplopods								
Pseudotremia amphiorax CAVE OBLIGATE SPECIES.	A Cave Milliped	Т/	G1G2 / S1S2	0	1	0	0	0
Pseudotremia carterensis CAVE OBLIGATE SPECIES.	A Cave Milliped	SI	G1G2 / S1S2	0	3	0	0	0
Pseudotremia merops CAVE OBLIGATE SPECIES.	A Cave Milliped	Т/	G1G2 / S1S2	0	1	0	0	0
Pseudotremia spira CAVE OBLIGATE SPECIES.	A Cave Milliped	Т/	G1G2 / S1S2	0	1	0	0	0

Scientific name	Common name	Statuses	Ranks		# of	Осс	urrer	nce
Habitat				Е	Н	F	Χ	Į
Pseudotremia unca CAVE OBLIGATE SPECIES.	A Cave Milliped	Τ/	G1G2 / S1S2	0	1	0	0	C
sects			G1 / S1				_	
Acroneuria kosztarabi RELATIVELY CLEAN, COBBLE AND BO	A Perlid Stonefly ULDER-STREWN STREAMS.	S/	GI/SI	1	0	0	0	(
Allocapnia cunninghami SPRING-FED STREAMS IN KARST HAB	A Capniid Stonefly	Т/	G1 / S1S2	1	7	0	0	(
	Eastern Red Damsel IS, SOMETIMES WITH A DEEP PEAT LAYER ARE PREFERRED. ALSO FOUND V GAE RUN OVER SAND (WESTFALL AND MAY 1996).	E / WHERE SEEPS WITH A	G5 / S1	2	0	0	0	(
Batrisodes hubrichti A CAVE OBLIGATE.	A Cave Beetle	Т/	G1G2 / S1S2	0	0	0	0	
Calephelis muticum WET MEADOWS, MARSHES AND BOGS	Swamp Metalmark S (OPLER AND MALIKUL 1992).	S/	G3G4 / S2	2	0	1	0	
Callophrys irus	Frosted Elfin ID SCRUBS. FEEDS ON WILD INDIGO AND LUPINE, OCCASIONALLY BLUE FAL	S / .SE INDIGO AND RATTLEBOX	G3 / S1	1	4	0	0	
Calopteryx dimidiata  OPEN, SAND-BOTTOMED STREAMS, U RIVERS (DUNKLE 1990).	Sparkling Jewelwing ISUALLY WITH EEL-GRASS, IS THE PREFERRED HABITAT IN FLORIDA. ALSO	H / OCCASIONALLY FOUND IN	G5 / SH	0	1	0	0	
	Double-ringed Pennant S AND STREAMS, WITH SPARSE EMERGENT PLANTS OR A MARGINAL ZONE REATED OR INFERTILE WATERS (DUNKLE 1989), BUT IN KENTUCKY IT HAS BE			1	0	0	0	
Cheumatopsyche helma RIVERS AND STREAMS (MERRITT AND	Helma's Net-spinning Caddisfly 0 CUMMINS 1978).	Н/	G1G3 / SH	0	2	0	0	
Dannella provonshai STREAMS IN THE OZARK MOUNTAINS	An Ephemerellid Mayfly AND APPALACHINA PLATEAU (RANDOLPH AND MCCAFFERTY 1998).	Н/	G2 / SH	0	3	0	0	
	Sixbanded Longhorn Beetle MAX HARDWOOD FOREST HABITAT, WHERE IT PRINCIPALLY LIVES ON SUGA AL. 1974, SCHWEITZER 1989). MID JUNE TO MID JULY IS WHEN ADULTS ARE	*	GNR / S1	5	2	0	0	
Ephemerella inconstans STREAMS.	An Ephemerellid Mayfly	H /	G3 / SH	0	1	0	0	
Erora laeta	Early Hairstreak	S/	G3G4 / S1	1	4	0	0	
DECIDUOUS OR MIXED WOODS OFT	TEN ALONG DIRT ROADS OR OPEN RIDGETOPS (OPLER AND MALIKUL 1992).							
· · · · · · · · · · · · · · · · · · ·	Dukes' Skipper , PARTIALLY SHADED MARSHES AND DITCHES IN MIDWEST (OPLER AND MAI ,EPIS) (L.D. GIBSON PERS COMM). ON THE ATLANTIC COAST IT ALSO FEEDS	,		5	0	0	1	
Habrophlebiodes celeteria	A Leptophlebiid Mayfly CHIANS (RANDOLPH AND MCCAFFERTY 1998).	Н/	G2 / SH	0	3	0	0	

Scientific name	Common name	Statuses	Ranks		# of	Осс	urrer	ıces
Habitat				Е	Н	F	Χ	U
Hansonoperla hokolesqua SMALL STREAMS IN THE NORTH FO	A Perlid Stonefly DRK TRIPLETT CREEK AND NEARBY DRAINAGES.	S/	G2 / S2	5	0	0	0	0
Litobrancha recurvata	A Burrowing Mayfly	S/	G5 / S1	1	0	0	0	0
NYMPHS LIVE IN SMALL BROOKS A	ND STREAMS AND BURROW IN MIXTURES OF SILT AND SAND (EDMUNDS ET PECIAL HABITAT REQUIREMENTS SUCH AS HEAVY MUD OR MARL SUBSTRAT							
Lytrosis permagnaria	A Geometrid Moth	E/	G3G4 / S1	0	0	3	0	0
DRY OAK, OAK-HICKORY, OR SCRU (SCHWEITZER 1989).	IB, SOMETIMES WITH SOUTHERN PINES IN CANOPY. MAY BE RESTRICTED T	TO OLD-GROWTH AREAS						
Manophylax butleri	A Limnephilid Caddisfly	S/	G2 / S2	17	0	0	0	0
•	ALONG THE POTTSVILLE ESCARPMENT OF THE CUMBERLAND PLATEAU FRO E OF THE LEE FORAMATION AND THE CORBIN MEMBER, AND AT ELEVATION							
Nannothemis bella	Elfin Skimmer	E/	G4 / S1S2	1	2	0	0	0
	FENS WITH SOME SEDGE MEADOWS AND MARL DEPOSITS (DUNKLE 2000). A G IN SMALL POCKETS OF SUNSHINE. LARVAE SEEM TO PREFER SHALLOW H							
Nicrophorus americanus	American Burying Beetle	H/LE	G2G3 / SH	0	5	0	0	0
	AREA IS SUSPECTED TO BE MORE IMPORTANT THAN VEGETATIONAL STRUINTERACT TO INFLUENCE THE POTENTIAL PREY BASE AVAILABLE FOR THE							
Nixe flowersi STREAMS.	A Heptageniid Mayfly	H /	G1 / SH	0	1	0	0	0
Ophiogomphus aspersus CLEAR STREAMS WHERE SHALLOV	Brook Snaketail V CURRENT RIPPLES OVER SAND (NEEDHAM AND WESTFALL 1954).	H /	G3G4 / SH	0	1	0	0	0
Ophiogomphus howei	Pygmy Snaketail	S/	G3 / S1S2	5	3	0	0	0
SAND AND GRAVEL IN SWIFTLY FLO	OWING, UNPOLLUTED AND UNDAMMED RIVERS (CARLE 1987, COOK 1992).							
Ophiogomphus mainensis CLEAR, MODERATELY RAPID ROCK	Maine Snaketail (Y STREAMS AND RIVERS IN FOREST, OFTEN WHERE THEY DRAIN LAKES O	E / R SWAMPS (DUNKLE 2000).	G4 / S1	1	1	0	0	0
Papaipema beeriana	Blazing Star Stem Borer	Τ/	G3 / S1S2	1	0	0	0	0
	MILAR HABITAT WITH THE FOODPLANT, LIATRIS SPP., PRESENT IN GOOD NU		G1G2 / S1	_	_		_	
Papaipema eryngii	Rattlesnake-master Borer Moth  NLY KNOWN FOODPLANT FOR THE LARVAE IS ERYNGIUM YUCCAFOLIUM (E	E/	G1G2/51	2	0	0	0	0
		,	G1G2 / S1S2		•	•	•	•
Papaipema sp. 5	Rare Cane Borer Moth	E /		1	0	0	0	0
Phyciodes batesii  MOIST MEADOWS AND PASTURES,	Tawny Crescent DRY ROCKY RIDGES (OPLER 1992).	H /	G4 / SH	0	2	0	0	0
Polygonia faunus	Green Comma	Н/	G5 / SH	0	4	0	0	0
A species of boreal forests, most often	seen along streams, roadsides, sipping moisture from dirt roads or in glades or outomon or below about 1300 meters in the Appalachians Reports from hot deciduous f							
Polygonia progne UNKNOWN IN KY.	Gray Comma	Н/	G5 / SH	0	2	0	0	0

Scientific name	Common name	Statuses	Ranks		# of	Осс	urrer	ıces
Habitat				Е	Н	F	Χ	U
	Bold Cave Beetle NON-CAVE MICROHABITAT. HYPOTHESIZED THAT IT MAY LIVE ERIODS (FALL) THE SPECIES DESCENDS INTO THE CAVE (BARR		G3 / S1	0	2	0	0	0
Pseudanophthalmus calcareus UNDER ROCKS ON DAMP SILT IN AREAS RIC (BARR 1981).	Limestone Cave Beetle H IN ORGANIC DEBRIS (CAVE RAT NEST DEBRIS, ROTTING WOO	T / DD, ETC.), AT LEAST IN SUMMER	G1G2 / S1	1	0	0	0	0
Pseudanophthalmus catoryctos	Lesser Adams Cave Beetle	E/C	G1G2 / S1	1	0	0	0	0
Pseudanophthalmus cnephosus CAVE OBLIGATE.	A Cave Beetle	Τ/	G1G2 / S1S2	1	1	0	0	0
Pseudanophthalmus conditus	Hidden Cave Beetle	Τ/	G1G2 / S2	1	1	2	0	0
Pseudanophthalmus desertus major	Beaver Cave Beetle	T/C	G3T1T2 / S1	1	0	0	0	0
Pseudanophthalmus exoticus	Exotic Cave Beetle	H /	G1G2 / SH	0	1	0	0	0
Pseudanophthalmus frigidus  MUDDY STRIKE GALLERY FROM THE EDGE C	Icebox Cave Beetle OF A TEMPORARY POOL AND UNDER A ROCK AMONG WET STA	T / C LACTITES (BARR 1981).	G1G2 / S1	0	1	0	0	0
Pseudanophthalmus globiceps FOUND BENEATH DAMP, ROTTING BOARDS	Round-headed Cave Beetle N BARNES SMITH CAVE (BARR 1994a).	Τ/	G1G2 / S1	0	1	0	0	0
Pseudanophthalmus horni abditus CAVES, MICROHABITAT UNKNOWN.	Concealed Cave Beetle	T/	G3T3 / S2	0	2	1	0	0
Pseudanophthalmus horni caecus	Clifton Cave Beetle	T/C	G3T1T2 / S1	1	1	0	0	0
Pseudanophthalmus horni horni	Garman's Cave Beetle	S/	G3T3 / S2S3	1	3	2	0	0
Pseudanophthalmus hypolithos  UNDER ROCKS AT BACK OF ENTRANCE ROC DEBRIS WAS PRESENT.	Ashcamp Cave Beetle  M OF OLD QUARRY CAVE AND IN LOWER OF TWO CRAWLWAYS	T / S (BARR 1981). ABUNDANT CAVE F	G1G2 / S2 RAT	1	1	0	0	0
Pseudanophthalmus inexpectatus	Surprising Cave Beetle	T/C	G3 / S2	1	3	0	0	0
Pseudanophthalmus parvus  TATUM CAVE UNDER ROCKS ALONG STREA	Tatum Cave Beetle M 100-150 FT N OF THE MOUTH.	T/C	G1G2 / S1	0	0	1	0	0
Pseudanophthalmus pholeter SPECIMENS WERE COLLECTED ON THE DAM	Greater Adams Cave Beetle  IP, SILT FLOOR OF THE CAVE.	E/C	G1G2 / S1	1	0	0	0	0
Pseudanophthalmus pubescens intrepidus	A Cave Beetle	T /	G3T3 / S2	0	0	2	0	0
Pseudanophthalmus puteanus	Old Well Cave Beetle	Τ/	G1G2 / S2	1	0	2	0	0
Pseudanophthalmus rogersae A SMALL STREAM CHANNEL INTERSECTED E (BARR 1981).	Rogers' Cave Beetle BY A 10-M DOME IN THE LOWER END OF A SECTION OF THE CAV	T / VE CALLED "THE EMPEROR'S PALA	G1G2 / S1 ACE"	1	0	0	0	0
Pseudanophthalmus scholasticus UPPER LEVEL OF THE CAVE NEAR THE ENTR	Scholarly Cave Beetle RANCE (BARR 1981).	Τ/	G1G2 / S1	0	1	0	0	0
Pseudanophthalmus simulans	Cub Run Cave Beetle	Т/	G1G2 / S1	0	0	1	0	0
Pseudanophthalmus solivagus A CAVE OBLIGATE BEETLE.	A Cave Beetle	S/	G1G2 / S1S2	0	3	0	0	0
Pseudanophthalmus tenebrosus FOUND IN STREAM CRAWL UNDER WET ROO	Stevens Creek Cave Beetle	Τ/	G1G2 / S2	0	1	1	0	0

Scientific name	Common name	Statuses	Ranks		# of	Осс	urrer	ices
Habitat				Е	Н	F	Χ	U
Pseudanophthalmus transfluvialis A CAVE OBLIGATE SPECIES.	A Cave Beetle	\$1	G1G2 / S1S2	0	0	0	0	5
Pseudanophthalmus troglodytes	Louisville Cave Beetle	T/C	G1G2 / S2	0	1	0	0	0
Pseudosinella espanita CAVE OBLIGATE.	A Cave Springtail	\$/	G1G2 / S1S2	0	2	0	0	0
Raptoheptagenia cruentata	A Heptageniid Mayfly	H /	G4 / SH	0	2	0	0	0
Satyrium favonius ontario	Northern Hairstreak	S/	G4T4 / S2	9	4	1	0	0
	GES WITH EVERGREEN OR DECIDUOUS OAKS (OPLER AND MAL UERCUS MARILANDICA) AND A NECTAR SOURCE SUCH AS FARI	,	M)					
Speyeria idalia	Regal Fritillary	H /	G3 / SH	0	1	0	0	0
· · · · · · · · · · · · · · · · · · ·	FOUND IN OTHER OPEN GRASSY SITUATIONS ELSEWHERE. DA BUT DRY MOUNTAIN PASTURES ARE ALSO SELECTED IN SOME							
Stenonema bednariki	A Heptageniid Mayfly	S/	G3 / S2	4	1	0	0	0
SLAB RUBBLE AND GRAVELLY SUBSTRATE	ES OF MODERATE GRADIENT STREAMS WITH GOOD WATER QU	ALITY.						
Stylurus notatus LARGE-RIVER SPECIES (SCHWEITZER 198	Elusive Clubtail 9).	E/	G3 / S1	0	8	0	0	0
Stylurus scudderi CLEAR FOREST STREAMS AND SMALL RIV	Zebra Clubtail ERS WITH RIFFLES, A SLOW TO RAPID CURRENT, AND A SAND/I	H / MUCK BOTTOM (DUNKLE 2000).	G4 / SH	0	2	0	0	0
Traverella lewisi STREAMS.	A Leptophlebiid Mayfly	H /	G2 / SH	0	1	0	0	0
Tychobythinus hubrichti A CAVE OBLIGATE SPECIES.	A Cave Beetle	Τ/	G1G2 / S1S2	0	0	0	0	2
Fishes								
Acipenser fulvescens LAKES AND LARGE RIVERS WITH A FIRM S	Lake Sturgeon AND/GRAVEL BOTTOM (BURR AND WARREN 1986, ETNIER AND	E / STARNES 1993).	G3G4 / S1	4	4	1	2	0
Alosa alabamae	Alabama Shad	E/C	G3 / S1	3	1	0	0	0
	ARGE RIVERS AND TRIBUTARIES TO SPAWN OVER COARSE SA JRR AND WARREN 1986, BARKULOO ET AL. 1993, ETNIER AND S		ATE					
Amblyopsis spelaea SUBTERRANEAN STREAMS WITH CONSOL POULSON 1963, CLAY 1975, COOPER 1980	Northern Cavefish IDATED MUD-ROCK SUBSTRATES IN SHOALS AND SILT-SAND SI ).	S / UBSTRATES IN POOLS (KUEHNE 196	G3 / S3 2,	21	10	6	0	0
Ammocrypta clara	Western Sand Darter	E/	G3 / S1	3	0	0	4	0
Medium-sized streams over sand in areas with	moderate to little or no current.							
Atractosteus spatula	Alligator Gar	E/	G3G4 / S1	0	10	0	0	0
Sluggish pools of large rivers and their bayous warm shallow water.	, oxbows, swamps, and backwaters; lakes; brackish and rarely coastal	marine waters. Spawns over vegetation	in					
Cyprinella camura	Bluntface Shiner	E/	G5 / S1	13	1	0	0	0
	MED STREAMS WITH LOGS OR OTHER COVER ON THE COASTAL 3. ALSO COLLECTED FROM CLEAR, FLOWING SPRINGS THAT DIS	,						

Scientific name	Common name	Statuses	Ranks		# of	Оссі	ırren	ces
Habitat				E			Χ	
	Blacktail Shiner AMS OF THE COASTAL PLAIN OVER FIRM SAND AND GRAVEL OF RI RGED STUMPS AND LOGS (BURR AND WARREN 1986). ALSO, OVER		G5 / S3	14	1	0	0	0
Erimystax insignis RIFFLES IN MEDIUM TO LARGE, CLEAR AND STARNES 1993).	Blotched Chub , STREAMS WITH CLEAN GRAVEL OR ROCK SUBSTRATE (HARRIS 1	E / 1980, BURR AND WARREN 1986, ETNII	G3G4 / S1 ER	6	3	0	8	0
Erimyzon sucetta	Lake Chubsucker	Т/	G5 / S2	10	8	1	0	0
LOWLAND LENTIC HABITATS (WETLANI ETNIER AND STARNES 1993).	DS AND FLOODPLAIN LAKES) WITH SUBMERGENT AND FLOATING ${f v}$	/EGETATION (BURR AND WARREN 19	86,					
Esox niger	Chain Pickerel	S/	G5 / S3	13	6	0	0	0
COASTAL PLAIN WETLANDS, STREAMS AND WARREN 1986, ETNIER AND STAR	S, AND VEGETATED OXBOW LAKE SHORELINES, AND IT ALSO TOLEI NES 1993).	RATES RESERVOIR CONDITIONS (BL	RR					
Etheostoma chienense	Relict Darter	E/LE	G1 / S1	20	0	2	0	0
gravel, sand, and leaf litter substrates near affinity for undercut banks of small creeks (	Plain stream system (Page et al. 1992). Concentrated in headwaters in slot fallen tree branches, undercut banks, or overhanging streambank vegetal (USFWS 1994). ides of sticks or logs (Ceas and Page, in USFWS 1994).							
Etheostoma cinereum	Ashy Darter	S/	G2G3 / S3	70	6	0	6	0
	MODERATE CURRENT, USUALLY ASSOCIATED WITH COVER (E.G., E ISKEY AND ETNIER 1972, SAYLOR 1980, SHEPARD AND BURR 1984,							
Etheostoma fusiforme	Swamp Darter	E/	G5 / S1	1	1	0	1	0
	LUGGISH STREAMS WITH SOFT SUBSTRATES (E.G., SILT AND ORGA RREN 1986, ETNIER AND STARNES 1993).	ANIC DEBRIS) AND SUBMERGENT						
Etheostoma lynceum	Brighteye Darter	E/	G5 / S1	6	0	0	0	0
<b>7</b> 1	with low gradients, over sand, fine gravel, and silt substrates (Etnier and S' Rocky riffles of creeks, small rivers; near debris in sand and gravel runs (P	,	ėl					
Etheostoma maculatum	Spotted Darter	Т/	G2 / S2	44	8	0	0	0
	S WHERE IT OCCURS AMONG COARSE GRAVEL, COBBLE AND BOU 983, ZORACH AND RANEY 1967, STILES 1972, BURR AND WARREN 1		LS					
Etheostoma microlepidum	Smallscale Darter	E/	G2G3 / S1	8	0	0	0	0
, 1, 0,	s with gravel, boulder, and coarse rubble substrates; juveniles often are tal nal discharge is about 0.5 m (Kuehne and Barbour 1983). Eggs are laid or	``	82,					
Etheostoma parvipinne	Goldstripe Darter	E/	G4G5 / S1	9	7	0	0	0
	RINGS, AND WETLANDS OF LOW TO MODERATE GRADIENT WITH SA CUT BANKS (BURR AND MAYDEN 1979, KUEHNE AND BARBOUR 1983		AND					
Etheostoma percnurum	Duskytail Darter	E/LE	G1 / S1	7	0	0	0	0
Relatively large streams with silt-free rocky	pools, generally in the vicinity of riffles (Burr and Eisenhour 1996).							
Etheostoma proeliare	Cypress Darter	T/	G5 / S2	14	11	0	0	0
	REAMS, OXBOWS, AND WETLANDS WHERE THE BOTTOM IS SOFT A ID BARBOUR 1983, PAGE 1983, BURR AND WARREN 1986).	AND AQUATIC VEGETATION ABOUND	S					

Scientific name	Common name	Statuses	Ranks		# of	Occi	urrer	ıces
Habitat				E	Н	F	Χ	U
	Firebelly Darter /ER GRAVEL, SAND, AND ORGANIC DEBRIS IN SLOW TO MODERATE FLOW S AND UNDERCUT BANKS ARE USED, AND ADULTS MAY INHABIT HEAVILY	,	G2 / S1 :R	6	0	0	0	0
Etheostoma susanae Small to moderate-sized streams in po	Cumberland darter ools, shoals, and backwaters with sand, gravel, and cobble/boulder, or bedrock w	E / C with low to moderate gradient.	G2 / S1	30	2	0	0	0
	Gulf Darter ZE CREEKS OVER GRAVEL OR COARSE SAND CONTAINING STICKS, LOG BOUR 1983, PAGE 1983, BURR AND WARREN 1986).	E / SS, AND UNDERCUT BANKS (BURR A	G5 / S1 .ND	10	4	0	0	0
Etheostoma tecumsehi Gravel/cobble riffles in relatively small	Shawnee Darter  I streams.	N /	G1 / S4	8	7	0	0	0
Fundulus chrysotus LOWLAND WETLANDS, SLOUGHS, 1986).	Golden Topminnow BACKWATERS, AND SLOW-MOVING STREAMS WITH SUBMERGENT AQUA	E / ATIC VEGETATION (BURR AND WAR	G5 / S1 REN	3	0	0	1	0
Fundulus dispar LOWLAND WETLANDS, SLOUGHS, 1986, ETNIER AND STARNES 1993)	Starhead Topminnow BACKWATERS, AND SLOW-MOVING STREAMS WITH BEDS OF AQUATIC V 1.	E / /EGETATION (BURR AND WARREN	G4 / S1	3	2	1	1	0
	Cypress Minnow R OF LOW GRADIENT STREAMS ON THE COASTAL PLAIN AND SHAWNEE H SSOCIATED WITH SUBMERGED AQUATIC VEGETATION OR OTHER COVER			8	10	0	1	0
Hybognathus placitus OCCURS OVER SAND/SILT BOTTOL WARREN 1986).	Plains Minnow M IN AREAS WITH CURRENT IN THE MAIN CHANNEL OF THE MISSISSIPPI	S / RIVER (PFLIEGER 1975, BURR AND	G4 / S1	2	2	0	0	0
Hybopsis amnis Sandy and silty pools of medium to lar	Pallid Shiner rge rivers (page and Burr 1991).	X/	G4 / SX	0	9	0	0	0
,	Chestnut Lamprey RIVERS, AND RESERVOIRS. SUBSTRATE CONSISTS OF GRAVEL AND RUI IS WITH STABLE BARS OF SILT, SAND AND ORGANIC DETRITIS (BECKER 1		G4 / S2 ILT.	2	8	0	0	0
Ichthyomyzon fossor SMALL TO MEDIUM-SIZE UPLAND S	Northern Brook Lamprey STREAMS WHERE ADULTS LIVE IN SAND-GRAVEL BOTTOMS OF CLEAN RI 991). AMMOCOETES REQUIRE MIXED SAND, SILT, AND DEBRIS IN QUIET V		G4 / S2	16	7	0	1	0
Ichthyomyzon greeleyi CLEAN, CLEAR, SMALL TO MEDIUM	Mountain Brook Lamprey M-SIZE STREAMS WITH HIGH GRADIENT AND MIXED SAND AND GRAVEL B HENT AREAS OF THESE STREAMS IN SAND, MUD, AND ORGANIC DEBRIS.	T / BOTTOMS (BURR AND WARREN 198	G3G4 / S2 6).	12	2	0	0	0
Ictiobus niger	Black Buffalo RGE RIVERS WITH MODERATE TO LOW GRADIENT AND SOMETIME SWIFT	S/	G5 / S3 ER	18	10	0	0	0
	American Brook Lamprey ers; cool, clear water; tidal freshwater in Massachusetts (Hoff 1988). Larvae burre eeding areas. Eggs are laid in nests in gravel/sand riffles and runs with strong flor		G4 / S2 er	17	7	0	2	0
Lepomis marginatus	Dollar Sunfish all to medium rivers with sand/mud bottom; brushy pools.	E/	G5 / S1	25	0	0	1	0

Scientific name	Common name	Statuses	Ranks		# of	Осс	urrer	ıces
Habitat				Е	Н	F	Χ	U
	Redspotted Sunfish SWAMPS, SLOUGHS, BOTTOMLAND LAKES, AND LOW GRADIENT STREAMS (BURF ARREN 1986, ETNIER AND STARNES 1993).	T / R AND MAYDEN 1979, PFLIEGE	G5 / S2 R	35	12	0	0	0
	Burbot ALLY COME FROM MEDIUM TO LARGE-SIZE RIVERS. IN THE NORTH, THEY INHABI 983, PFLIEGER 1975, SCOTT AND CROSSMAN 1973, SMITH 1979, TRAUTMAN 1981).		G5 / SU	7	5	0	0	0
Macrhybopsis gelida ADULTS INHABIT LARGE, TURBII AND WARREN 1986, ETNIER AND	Sturgeon Chub D RIVERS WHERE THEY LIVE IN SWIFT, SHALLOW WATER OVER SAND OR GRAVE D STARNES 1993).	E / C EL BOTTOMS (SMITH 1979, BUI	G3 / S1 RR	1	0	0	0	0
	Sicklefin Chub ITH SOME CURRENT IN THE MAIN CHANNEL OF LARGE, TURBID RIVERS (BURR AN T SILTY SIDE CHANNELS OR BACKWATERS (BURR AND WARREN 1986).	E / C ND WARREN 1986, ETNIER ANI	G3 / S1	1	0	0	0	0
Menidia beryllina SCHOOLING SURFACE FISH THA 1993).	Inland Silverside AT OCCURS IN THE MISSISSIPPI RIVER AND FLOODPLAIN LAKES (BURR AND WAR	T / RREN 1986, ETNIER AND STAR	G5 / S2 NES	11	1	0	0	0
	Blacktail Redhorse ERRAPIN CREEK, AND SAND AND GRAVEL RACEWAYS AND POOLS WITH LOGS AI 36). ACCORDING TO ETNIER AND STARNES (1993), IT ALSO OCCURS IN LARGE RIV		G5 / S1	2	0	0	0	0
Nocomis biguttatus  CLEAR POOLS AND AREAS WITH TO SAND (BURR AND WARREN 1	Hornyhead Chub H MODERATE CURRENT IN MEDIUM TO LARGE-SIZE STREAMS WITH BOTTOM MA <sup>*</sup> 1986).	S / TERIALS RANGING FROM COE	G5 / SU BLE	1	1	0	0	0
	Palezone Shiner FUPLAND STREAM WITH PERMANENT FLOW, CLEAR WATER, AND SUBSTRATES CAN SAND. (BRANSON AND SCHUSTER 1982, BURR AND WARREN 1986, WARREN AI		G2 / S1 E,	30	2	0	1	0
Notropis hudsonius OCCURS OVER FIRM SAND ALOI	Spottail Shiner ING THE SHORELINE OF BIG RIVERS WHERE RAPID CURRENT IS AVOIDED (BURR	S / R AND WARREN 1986).	G5 / SU	1	1	0	0	0
Notropis maculatus  Typically in backwaters and pools of Burr 1991, Lee et al. 1980).	Taillight Shiner of sluggish, mud-bottomed small to large rivers, swamps, ponds, and lakes, usually with so	T / ome aquatic vegetation (Page an	G5 / S2S3	14	10	0	0	0
Notropis sp. 4 INHABITS FLOWING POOLS OR F STARNES 1993).	Sawfin Shiner RACEWAYS WITH ROCKY BOTTOMS IN CLEAR UPLAND STREAMS (BURR AND WA	E / ARREN 1986, ETNIER AND	G4 / S1	9	7	0	0	0
Noturus exilis THIS IS A BENTHIC FISH THAT IN	Slender Madtom NHABITS RIFFLES AND POOLS WITH A SUBSTRATE OF GRAVEL, RUBBLE, AND/OR IER AND STARNES 1993). ALSO OCCURS IN COVER ALONG WAVE-SWEPT MARGIN		G5 / S1 LIVE	6	3	0	1	0
	Least Madtom STREAMS TO LARGE RIVERS AMONG ACCUMULATED DEBRIS AND LOGS, ALONG ND SAND (BURR AND MAYDEN 1979, TAYLOR 1969, MAYDEN AND WALSH 1984, BL	*	G5 / S1 ER	4	0	0	0	0
	Brown Madtom R MIXED GRAVEL AND SAND, AND IN ORGANIC DEBRIS PILES AND TREE ROOTS A DEN 1979; BURR AND WARREN 1986; ETNIER AND STARNES 1993).	E / LONG UNDERCUT BANKS	G4 / S1	4	0	0	0	0

Scientific name	Common name	Statuses	Ranks		# of	Оссі	ırrer	ıces
Habitat				Е	Н	F	Χ	U
Noturus stigmosus LARGE STREAMS AND RIVERS IN MODERA COVER (BURR AND WARREN 1986, ETNIER	Northern Madtom ATE TO SWIFT CURRENT OVER GRAVEL AND SAND, AND SOMET R AND STARNES 1993).	S / FIMES DEBRIS OR PONDWEED FOR	G3 / S2S3	34	22	0	0	0
Percina macrocephala  CLEAR, UPLAND STREAMS AND RIVERS W AND BARBOUR 1983, PAGE 1983, BURR AN	Longhead Darter /ITH MODERATE CURRENT, OVER CLEAN SUBSTRATES, OFTEN ND WARREN 1986).	E / ABOVE AND BELOW RIFFLES (KUEH	G3 / S1 NE	14	11	0	3	0
Percina squamata	Olive Darter	E/	G3 / S1	6	1	0	0	0
	g chutes with rubble and boulders in high-gradient streams, or in deeperurs in shallow pools with gravel or rock bottom.	er downstream portions of gravel riffles in	1					
Percopsis omiscomaycus	Trout-perch	S/	G5 / S3	41	17	0	1	0
LIVES IN CLEAR, SMALL TO MODERATE-SI	ZE STREAMS IN POOLS OR RACEWAYS OVER CLEAN SAND OR	MIXED SAND AND GRAVEL BOTTOMS	3.					
Phenacobius uranops	Stargazing Minnow	S/	G4 / S2S3	29	23	0	0	0
INHABITS MEDIUM-SIZE STREAMS TO SMA SUBSTRATES (BURR AND WARREN 1986).	ALL RIVERS WITH HIGH GRADIENT, PERMANENT FLOW, CLEAR V	WATER, AND PEBBLE AND GRAVEL						
Phoxinus cumberlandensis	Blackside Dace	T/LT	G2 / S2	154	2	3	4	0
	ide where riffle and pool areas are about equal. Associated with lush ripurs in pools with cover such as bedrock, rubble, undercut banks, or bru		than					
Platygobio gracilis	Flathead Chub	S/	G5 / S1	1	1	0	0	0
LARGE, TURBID RIVERS AND THEIR TRIBU ETNIER AND STARNES 1993).	ITARIES WITH SWIFT CURRENT OVER SAND, GRAVEL, OR SILT S	SUBSTRATES (BURR AND WARREN 1	986,					
Rhinichthys cataractae  SWIFT RIFFLES IN STREAMS AND RIVERS STARNES 1993). ALSO KNOWN FOR WAVE	Longnose Dace WITH BOULDER, COBBLE, PEBBLE, AND GRAVEL SUBSTRATES SWEPT LAKE SHORES.	None / (BURR AND WARREN 1986, ETNIER A	G5 / SNA AND	1	0	0	0	0
Scaphirhynchus albus	Pallid Sturgeon	E/LE	G1 / S1	2	1	0	0	0
	bitat; occurs in strong current over firm gravel or sandy substrate (USF Sharpe transition in South Dakota, found in deep water with low curren	· · · · · · · · · · · · · · · · · · ·	al					
Thoburnia atripinnis	Blackfin Sucker	S/	G2 / S2	9	1	0	0	0
· · · · · · · · · · · · · · · · · · ·	TERNATING POOLS AND RIFFLES. ASSOCIATED WITH SLAB ROC Y 1959, ETNIER AND STARNES 1993, TIMMONS ET AL. 1983, BUR	· · · · · · · · · · · · · · · · · · ·	CUT					
Typhlichthys subterraneus	Southern Cavefish	S/	G4 / S2S3	12	4	0	0	0
	FONE BEDROCKS ARE HONEYCOMBED BY SUBSURFACE DRAIN. L, SAND, AND MUD, OR RUBBLE SUBSTRATES AND MAY OCCUR		1980,					
Umbra limi	Central Mudminnow	T/	G5 / S2S3	24	6	0	1	0
	RGENT AQUATIC VEGETATION OR ORGANIC DEBRIS PILES IN SI IE COASTAL PLAIN (BURR AND WARREN 1986).	PRING-FED WETLANDS, DITCHES, AN	ID					
mphibians								
Amphiuma tridactylum	Three-toed Amphiuma	E/	G5 / S1	1	1	0	0	0
	N SPRING STREAMS OF RUNNING WATER, AND STREAMS FLOW AYOUS, AND WOODED ALLUVIAL SWAMPS (BISHOP 1974). PROE							
Cryptobranchus alleganiensis alleganiensis CONFINED TO RUNNING WATERS OF FAIR	Eastern Hellbender RLY LARGE STREAMS AND RIVERS.	S/	G3G4T3T4 / S3	33	33	0	3	0

Scientific name	Common name	Statuses	Ranks		# of	Occ	urrer	ıces
Habitat				E	Н	F	Χ	U
Eurycea guttolineata	Three-lined Salamander	Т/	G5 / S2	5	0	0	0	0
· · · · · · · · · · · · · · · · · · ·	msides, seepage springs. May disperse into wooded terrestrial habitats in wet w r debris. Eggs are laid in underground crevices associated with springs, tempora odland ponds.							
Hyla avivoca IN KENTUCKY, THE SPECIES APPEAR WATER TUPELO, GREEN ASH, AND BU	Bird-voiced Treefrog S TO BE RESTRICTED TO FLOODPLAIN WETLANDS, ESPECIALLY THOSE JTTONBUSH.	S / DOMINATED BY BALD CYPRESS	G5 / S3 ,	26	1	0	1	0
Hyla cinerea	Green Treefrog	S/	G5 / S3	44	0	0	0	0
FLOODPLAIN WETLANDS, PARTICULA	RLY THOSE DOMINATED BY BUTTONBUSH AND HERBACEOUS EMERGEN	NT VEGETATION.						
Hyla gratiosa	Barking Treefrog	S/	G5 / S3	64	8	0	0	0
IN KENTUCKY, THE SPECIES IS KNOW AGRICULTURAL CROP FIELDS.	IN FROM SWAMPS AND SINKHOLE PONDS, SOME OF WHICH ARE SITUAT	ED IN PASTURES, HAYFIELDS, A	AND					
Hyla versicolor	Gray Treefrog	S/	G5 / S2S3	37	0	0	0	0
PERMANENT AND TEMPORARY POND	S IN SEMI-OPEN HABITATS. NATIVE HABITAT IS UNKNOWN.							
Plethodon cinereus	Redback Salamander	S/	G5 / S3	22	4	0	0	0
A WOODLAND SPECIES THAT OCCUR DEBRIS.	S IN DECIDUOUS AND MIXED FOREST TYPES. ADULTS ARE FOUND UNDE	ER LOGS, ROCKS, BARK, MOSS	AND					
Plethodon wehrlei	Wehrle's Salamander	E/	G5 / S1	2	0	0	0	0
THE SINGLE KENTUCKY LOCALITY IS	A SHALE OUTCROP ALONG A STREAM.							
Rana areolata circulosa  BREEDS IN PONDS IN FARMLAND AND MOIST GRASSLANDS AND MEADOWS	Northern Crawfish Frog DEDGE. REMAINS UNDERGROUND THROUGHOUT MOST OF THE YEAR, U	S / USING CRAYFISH BURROWS IN	G4T4 / S3	51	16	5	0	0
Rana pipiens	Northern Leopard Frog PONDS. OTHERWISE USES MOIST GRASSLAND, MEADOWS AND MARGIN	S/	G5 / S3	29	8	1	1	0
eptiles	TONDO. OTTERWIDE GOLG MOIST GRAGGEARD, MEADOWG ARD MARKSIN	<b>v</b> O.						
Apalone mutica mutica	Midland Smooth Softshell	S/	G5T5 / S3	24	0	0	0	0
•		T /	G5T5 / S2	10		0	-	4
Chrysemys picta dorsalis FLOODPLAIN SLOUGHS AND SWAMPS	Southern Painted Turtle S, MANMADE PONDS. NESTS ARE DUG ALONG MARGINS.	17	0010702	10	2	U	0	1
Clonophis kirtlandii	Kirtland's Snake	Т/	G2 / S2	19	5	0	0	1
, , , , , , , , , , , , , , , , , , ,	N WOODS; PROBABLY OCCURRED FORMERLY IN PRAIRIE SITUATIONS. S JRROWS. CAN BE FOUND UNDER LOGS, DEBRIS. MANY RECENT RECORI		NAL					
Elaphe guttata guttata	Corn Snake	S/	G5T5 / S3	34	14	0	0	4
Eumeces anthracinus	Coal Skink	Т/	G5 / S2	14	5	0	0	0
	itter and loose rocks; vicinity of springs, swamps, and bogs; rocky bluffs above or water. Make take refuge in water. One nest was under a piece of shale (Mount	, ,	est					
Eumeces inexpectatus OPEN WOODLANDS, EDGES.	Southeastern Five-lined Skink	S/	G5 / S3	16	17	0	0	1
Farancia abacura reinwardtii	Western Mud Snake	S/	G5T5 / S3	12	5	0	0	1
Lampropeltis triangulum elapsoides	Scarlet Kingsnake	S/	G5T5 / S3	8	9	0	0	0
, .	ss frequently in bottomland, mixed hardwood, and upland pine forest, sandhills, a	<del>-</del> :	20.07.00	O	9	J	U	U

extensive grassy wetlands (except "limestone-lined banks of sugar cane irrigation fields") (Tennant 1997). In or near pine woods beneath logs and stumps; also in coastal plains.

Scientific name	Common name	Statuses	Ranks		# of	Осс	urrer	ces
Habitat				E	Н	F_	Χ	U
	Alligator Snapping Turtle R AREAS OF LARGER RIVERS, IMPOUNDMENTS. SEEMS TO PREFER MUDDY SU BEAVER DENS, LOGS, OR SHELTERING VEGETATION.	T / JBSTRATE WITH DARK	G3G4 / S2	4	2	0	0	3
	Green Water Snake us, estuaries, shallow lakes and ponds, wet prairie, oxbows and floodplain sloughs, slugvoirs. Basks on banks or in shore vegetation.	E / ggish tree-lined streams,	G5 / S1	1	0	0	0	0
Nerodia erythrogaster neglecta	Copperbelly Water Snake	S/	G5T2T3 / S3	67	6	0	3	C
wooded lakes, streams, or other permane adjacent to wooded cover for access to poswamps seasonally begin to dry, or may simid-summer and early fall when active maneeded to sustain a viable population (ab Basks on partially submerged logs and sin In floodplain habitat in Indiana, favored m lodges enhanced habitat quality; avoided Deep underground chambers in wooded in dense brushpiles, fieldstone piles, and peimmediately adjacent to wetlands, general and Coppola 2000).	and Collins 1991). Lowland swamps, oxbow lakes in floodplains, brushy ditches, and ent waters; and wooded corridors between these habitats (USFWS 1993). Willow-button termanent wetlands and to wooded upland hibernation sites (Sellers 1991). Seeks perm stay near shallow swamp or move throughout surrounding woodland (USFWS 1993). Note and in the terrestrial brushy part of the habitat (USFWS 1993). About 500-600 acres of sout 50 individuals with 12 breeding pairs) (USFWS 1993). In individuals with 12 breeding pairs) (USFWS 1993). In southern the terrestrial brushy part of the habitat (USFWS 1993). In southern Indiana and adjacent to the snakes also may use felled tree thaps beaver and muskrat lodges (USFWS 1993). In southern Indiana and adjacent Keally underground in upland forest or (sometimes underwater) in inactive crayfish burrow	anbush or cypress swamps manent wetlands when woodla May become difficult to find in of continuous swamp-forest is the presence of beaver dams are root networks in bottomland tentucky, hibernation occured as in palustrine forest (Kingsburg).	and Is, in or					
,, ,	r or in a pond, lake, or swamp (Sellers 1991). Births occur in or near the hibernation site	,	G5T5 / S1	_				
Nerodia fasciata confluens FLOODPLAIN WETLANDS, ESPECIALL' OCCURS IN CYPRESS SWAMPS, MAR:	Broad-banded Water Snake Y LARGE, SHALLOW WATER AREAS. SOMETIMES INHABITS SLUGGISH STREAN SHES AND LAKES.	E / MS, BUT IT MORE COMMON		2	0	0	0	0
Ophisaurus attenuatus longicaudus	Eastern Slender Glass Lizard	Τ/	G5T5 / S2	29	7	0	0	C
	GRASSY FIELDS, BRUSHY AREAS, OPEN WOODLANDS, AND SEEMS TO PREFE SLANDS, AND REMAINS MOST COMMON IN BARRENS TYPE VEGETATION.	ER DRIER, UPLAND SITES.						
Pituophis melanoleucus melanoleucus	Northern Pine Snake	Τ/	G4T4 / S2	9	13	0	0	7
Sistrurus miliarius streckeri	Western Pygmy Rattlesnake  O OCCUR MOST FREQUENTLY IN DRY WOODLANDS OF OAK AND HICKORY, SO	T /	G5T5 / S2	1	14	0	0	C
Thamnophis proximus proximus	Western Ribbon Snake	T /	G5T5 / S1S2	3	1	0	0	(
THIS SPECIES IS RARELY SEEN FAR F	FROM WATER, AND IT MOST OFTEN INHABITS THE MARGINS AND SHRUB LAYE MAY ALSO OCCUR IN MANMADE HABITAT SUCH AS DITCHES THROUGH OR NE	ERS OF FLOODPLAIN		Ü	•	Ü	Ü	
Thamnophis sauritus sauritus	Eastern Ribbon Snake	S/	G5T5 / S3	22	9	1	0	(
eeding Birds								
Accipiter striatus	Sharp-shinned Hawk	S/	G5 / S3B,S4N	67	1	0	0	
,	NIFEROUS, MIXED, OR DECIDUOUS, PRIMARILY IN CONIF. IN MORE NORTHERN S THROUGH VARIOUS HABITATS, MAINLY ALONG RIDGES, LAKESHORES, & CO.		TION					
Actitis macularia	Spotted Sandpiper	E/	G5 / S1B	2	1	0	0	(
SEACOASTS AND SHORES OF LAKES, ALSO MANGROVE EDGES IN CARIBBE	, PONDS, AND STREAMS, SOMETIMES IN MARSHES; PREFERS SHORES WITH FEAN.	ROCKS, WOOD, OR DEBRIS	•					
Aimophila aestivalis	Bachman's Sparrow	E/	G3 / S1B	1	0	0	33	(
OPEN PINE WOODS WITH SCATTEREI AND BRAMBLES, GRASSY ORCHARDS	D BUSHES OR UNDERSTORY, BRUSHY OR OVERGROWN HILLSIDES, OVERGRO	OWN FIELDS WITH THICKE	rs					

Scientific name	Common name	Statuses	Ranks		# of	Occ	urren	ices
Habitat				Е	Н	F	0 1 8 23 0 0 0 0 0	U
	Henslow's Sparrow INTERSPERSED W/ WEEDS OR SHRUBBY VEG., ESPEC. IN DAMP OR LOV RATION & WINTER ALSO IN GRASSY AREAS ADJACENT TO PINE WOODS	,	G4 / S3B	66	3	1	2	0
Anas clypeata  NESTS OCCASIONALLY IN TEMPORAR	Northern Shoveler RY KARST LAKES IN OPEN AGRICULTURAL LAND.	E/	G5 / S1	2	0	0	0	0
Anas discors  MARSHES, PONDS, SLOUGHS, LAKES BRACKISH SITUATIONS (B83COM01NA	Blue-winged Teal AND SLUGGISH STREAMS. IN MIGRATION AND WHEN NOT BREEDING, IN A).	T / N BOTH FRESHWATER AND	G5 / S1S2B	11	1	0	1	0
Ardea alba	Great Egret	E/	G5 / S1B	5	0	2	8	0
	STUARIES, LAGOONS, MANGROVES, ALONG STREAM, LAKES, AND PONE		05 / 000 041					
Ardea herodias	Great Blue Heron	S/	G5 / S3B,S4N	85	0	7	23	0
Freshwater and brackish marshes, along lakes, rivers, bays, lagoons, ocean beaches, mangroves, fields, and meadows. Nests commonly high in trees in swamps and forested areas, less commonly in bushes, or on ground, rock ledges, and coastal cliffs. Often nests with other herons. See Spendelow and Patton (1988) for further details and discussion of geographic variation in nesting sites. Generally nests close to foraging habitat.								
Asio flammeus	Short-eared Owl	E/	G5 / S1B,S2N	2	0	0	0	0
Asio flammeus  Short-eared Owl  BREEDING: Broad expanses of open land with low vegetation for nesting and foraging are required. Habitat types frequently mentioned as suitable include fresh and saltwater marshes, bogs, dunes, prairies, grassy plains, old fields, tundra, moorlands, river valleys, meadows, savanna, open woodland, and heathland (Dement'ev et al. 1951, Clark 1975, Mikkola 1983, Holt and Melvin 1986). In general, any area that is large enough, has low vegetation with some dry upland for nesting, and that supports suitable prey may be considered potential breeding habitat, although many will not have breeding short-eared owls. Dement'ev and Gladkov (1951) assert that "nearthy water" is a requirement for nesting habitat. Roosts by day on ground, on low open perch, under low shrub, or in conifer. Reported from "forest" habitats in Hawaii.  Nests on ground, generally in slight depression (Terres 1980), often beside or beneath a bush or clump of grass. Many nests are near water but generally are on dry sites. In coastal Massachusetts, nested in secondary herbaceous grass/sand dune vegetation dominated by AMMOPHILA (Holt 1992). Same nest site may be used in successive years. Moves into and breeds in areas with high rodent densities.  Generally nest on high ground or upland sites (Pitelika et al. 1955, Clark 1975, Holt and Melvin 1986; Tate and Melvin 1987, 1988; Combs and Melvin 1989). Urner (1925) reported nests in a saltmarsh, one of which was subsequently flooded by a high tide, but in general, drier sites are preferred. During five years of study on Nantucket and Tuckermuck islands, all 41 nests found were in dry upland areas. Hough that sites are available (Holt and Melvin 1986). Well and Melvin 1987, 1988; Combs and Melvin 1989; Combs and Griffin 1990). Eight nest sites at Monomoy National Wildlife Refuge, east of Nantucket, found between 1982 and 1985, were also all on dry upland sites (Holt and Melvin 1986), vegetation characteristics of 15 nest sites on Nantucket were evaluated in 1986 and 1987.								
Asio otus	Long-eared Owl	E /	G5 / S1B,S1S2N	1	0	0	0	0
NEED INFO.								
•	Upland Sandpiper s, DRY MEADOWS, PASTURES, FIELDS AROUND AIRPORTS, AND (IN ALAS TION ALONG SHORES AND MUDFLATS (B83COM01NA).	H / SKA) SCATTERED WOODLANDS A	G5 / SHB T	0	2	0	0	0

Scientific name	Common name	Statuses	Ranks		# of	Оссі	ırren	ces
Habitat				Е	Н	F	3 4 0 1	U
· · · · · · · · · · · · · · · · · · ·	American Bittern ET FIELDS, CATTAIL AND BULRUSH MARSHES, BRACKISH AND SALTWATER M ERVED IN MARSHES <11 HA (A86BRO01NA).	H / MARSHES AND MEADOWS. MAY	G4 / SHB BE	1	1	0	3	0
	Cattle Egret S, FRESH WATER AND BRACKISH SITUATIONS, DRY FIELDS, GARBAGE DUMPS ON MANGROVE ISLANDS (B83RAF01NA).	S / S. IN W. INDIES, ROOSTS AT	G5 / S1S2B	2	0	0	4	0
Certhia americana FOREST, WOODLAND, SWAMPS: AL	Brown Creeper  LSO SCRUB AND PARKS IN WINTER AND MIGRATION.	E/	G5 / S1S2B,S4S5N	4	0	0	0	0
Martin and Parrish 2000). Usually nest nest of other birds (e.g., Mockingbird [Nahrub component and sparse litter (Ra Suitable habitat includes shortgrass, matheterbelts; parks; riparian areas; brus et al. 1984, Walley 1985, Sample 1989, 1997, Prescott 1997, Martin and Parris Use both native and tame vegetation in AGROPYRON DESERTORUM) that was negatively correlated with sagebrush data percent grass cover, 7 percent forbil flushed near mesquite (PROSOPIS JUNest either on the ground or close to the areas of sparse ground cover such as 1963, Baepler 1968, Kahl et al. 1985, Walley 1985). Ground nests often are pagebrush (Cameron 1908). Above-grounds.	n shrubsteppe (Bock and Bock 1992). In Nevada, preferred areas of crested wheatgra vere invaded by sagebrush (ARTEMISIA) over areas dominated solely by either sageb lensity (McAdoo et al. 1989). In Arizona, inhabited areas characterized by mean habita cover, less than 2 percent canopy cover, 13 centimeter grass height, and 0.068 shrub	we ground (Terres 1980). May use ass and shortgrass uplands with a et al. 1991, Bock et al. 1995). ds; shrub thickets; woodland edge at the area and Lingle 1995, Best et ass (AGROPYRON CRISTATUM, brush or wheatgrass; abundance wat values of 38 percent bare grounds per square meter; usually were ass (Baepler 1968, Salt and Salt 1968; Balways were located under appler 1968, Newman 1970, McNatalet and short salt and salt 1968, Newman 1970, McNatalet and short salt and salt 1968, Newman 1970, McNatalet and short salt and salt 1968, Newman 1970, McNatalet and short salt and salt 1968, Newman 1970, McNatalet and short salt and salt 1968, Newman 1970, McNatalet and short salt and salt 1968, Newman 1970, McNatalet and short salt and salt 1968, Newman 1970, McNatalet and short salt and salt 1968, Newman 1970, McNatalet and short salt and salt 1968, Newman 1970, McNatalet and short salt and salt 1968, Newman 1970, McNatalet and short salt and salt 1968, Newman 1970, McNatalet and short salt and salt 1968, Newman 1970, McNatalet and short salt and salt 1968, Newman 1970, McNatalet and short salt and salt 1968, Newman 1970, McNatalet and salt 1970, McNatalet and salt 1970, McNatalet and salt 1970, McNat	old s; oore al. vas od, in er 76,	14	21	0	1	0
Circus cyaneus	Northern Harrier	Т/	G5 / S1S2B,S4N	10	0	0	0	0

MARSHES, MEADOWS, GRASSLANDS, AND CULTIVATED FIELDS. PERCHES ON GROUND OR ON STUMPS OR POSTS. WINTER ROOSTS IN UNDISTURBED FIELDS OR MARSHES (B82EVA01NA).

Calantifia nama	Etetuee	Donko		# ~£	0			
Scientific name Habitat	Common name	Statuses	Ranks	Е			urren X	
	Codgo Miron	6.1	G5 / S3B					
marshes; coastal brackish marshes of exposed perch, otherwise creeps and low in tall dense growths of sedges of Nesting areas may change opportunitakes place among dense, tall growth occurs in coastal, brackish marshes. conditions, and abandon sites render Opportunistic breeders and may rene years.  In New England, Bagg and Eliot (193 permanently wet, tussocky marshland pastures, sedgy and grassy meadows consisted of switchgrass (PANICUM Maryland, sedge meadows in boreal (Stewart and Robbins 1958).  At moist soil impoundments in Missoc cover, openings, and flooded areas (I habitats dominated by sedges (CARE cattail, and river bulrush (SCIRPUS FIn Minnesota, preferred dense sedge territories in Minnesota were 303 sed of 1.1 m (Niemi 1985). Higher densiti (Niemi and Hanowski 1984). At anoth (CAREX STRICTA), and water sedge At Delta Marsh, Manitoba, occurred in Crawford (1977) studied them in a gla (PHALARIS ARUNDINACEA) (17 ne: primarily of bulrush (SCIRPUS FLUV bordering meadow to be preferred ha growth, and with no standing water. In a Nebraska study, wrens avoided to common ragweed (AMBROSIA ARTE of rank grasses and weeds about one wet year in Kansas (Tordoff and Your NON-BREEDING: Little information is	growth intermixed with patchy, one to two m high shrubs (Niemi and Hanowski 1984). A ge stems/meter squared, 16 forb stems/meter squared, 50 shrub stems/meter squared, es occurred in areas withmedium shrub densities (11-32 stems/0.0025 ha) than in areas per Minnesota site, major vegetation types in territories were stands of great bulrush (SC et (C. AQUATILIS) and monotypic stands of C. AQUATILIS (Burns 1982). In wet, white-top (SCOLOCHLOA FESTUCACEA) and sedge (CAREX ATHERODES) made and marsh complex in lowa, and found nests in drier sites around marshes in areas do stst) and river bulrush (14 nests) stands. Reproductive success was higher, however, for IATILIS). Similarly, Walkinshaw (1935) considered the portion of a marsh intermediate the bitats in Michigan. Birds used areas where sedges and grasses predominated, with cluming fround and occurred most commonly along moist, ungrazed margins of relict chancements. MISIFOLIA), and river bulrush predominated (Lingle and Bedell 1989). A southward-sleen migh, interspersed with clumps of smooth sumac (RHUS GLABRA), supported a nearing 1951).	pids cattail marshes. Sings from white and provided the season. Ne gins of ponds and marshes. It als habitats. Highly sensitive to habit be become too prevalent. It also become too be too become too prevalent. It also become to be too become	and sts sting o cat e ered and state ard dry s seight e 80). the	17	15		1	0
,	r sedge meadows and marshes are used, as are old fields and prairies with dense, mat e used during migration (Forbush 1929, Palmer 1949).	ted grass or weeds (Howell 1932)	).					
Corvus corax	Common Raven	Т/	G5 / S1S2	11	0	0	0	0
	/LANDS TO MOUNTAINS, OPEN COUNTRY TO FORESTED REGIONS, AND HUMID TAINOUS AREAS, ESPECIALLY IN VICINITY OF CLIFFS (B83COM01NA).	OS REGIONS TO DESERT; MOS	Т					
Corvus ossifragus	Fish Crow	S/	G5 / S3B	24	1	0	0	0
· · · · · · · · · · · · · · · · · · ·	TS, SWAMPS, NEAR MARSHES, AND, LESS FREQUENTLY, DECIDUOUS OR CON CYPRESS SWAMPS AND ALONG MAJOR WATERCOURSES. ALSO GARBAGE DUN	•	ND					
Dendroica fusca	Blackburnian Warbler	Τ/	G5 / S1S2B	2	0	0	0	0

CONIFEROUS (PRIMARILY BALSAM FIR) AND MIXED FOREST, OPEN WOODLAND, SECOND GROWTH. IN MIGRATION AND WINTER IN VARIOUS

FOREST, WOODLAND, SCRUB, AND THICKET HABITATS. (B83COM01NA).

Scientific name	Common name	Statuses	Ranks		# of Occurrence				
Habitat				<u>E</u>	Н	F	X	U	
Dolichonyx oryzivorus	Bobolink	S/	G5 / S2S3B	11	0	0	0	0	_

BREEDING: Tall grass areas, flooded meadows, prairie, deep cultivated grains, and hayfields (AOU 1998). In New York, old hayfields, at least 8 years since planting and including a minimum of alfalfa, were important nesting habitat (Bollinger and Gavin 1992). Nests on ground in small hollow in area of concealing herbaceous vegetation. Tends to return to breed in same area in successive years, especially if that site has had good Bobolink productivity (Bollinger and Gavin 1989).

Prefer habitat with moderate to tall vegetation, moderate to dense vegetation, and moderately deep litter (Tester and Marshall 1961, Bent 1958, Harrison 1974, Bollinger 1995), and without the presence of woody vegetation (Sample 1989, Bollinger and Gavin 1992). Found in native and tame grasslands, haylands, lightly to moderately grazed pastures, no-till cropland, small-grain fields, oldfields, wet meadows, and planted cover (e.g., Conservation Reserve Program [CRP] fields, Permanent Cover Program [PCP] fields, and Dense Nesting Cover [DNC]) (Bent 1958; Speirs and Orenstein 1967; Birkenholz 1973; Harrison 1974; Skinner 1974, 1975; Stewart 1975; Joyner 1978; Johnsgard 1979, 1980; Faanes 1981; Kantrud 1981; Kantrud and Kologiski 1982; Renken 1983; Huber and Steuter 1984; Basore et al. 1986; Renken and Dinsmore 1987; Bollinger 1988, 1991, 1995; Sample 1989; Bollinger et al. 1990; Messmer 1990; Herkert 1991a, 1994a, 1997; Bollinger and Gavin 1992; Bock et al. 1993; Johnson and Schwartz 1993; Dhol et al. 1994; Hartley 1994; Jones 1994; King and Savidge 1995; Madden 1996; Patterson and Best 1996; Prescott and Murphy 1996; Best et al. 1997; Dale et al. 1997; Delisle and Savidge 1997; McMaster and Davis 1998; Schneider 1998). Commonly found in areas with high percent grass cover and moderate percent forb cover (Wiens 1969, Skinner 1974, Renken 1983, Renken and Dinsmore 1987, Sample 1989, Herkert 1994a, Madden 1996). Bollinger (1988, 1995) noted preference for haylands with high grass-to-forb ratios and avoidance of haylands with high legume-to-grassratios; however, a forb component was beneficial for nesting cover.

Within mixed-grass pastures in North Dakota, abundance was positively associated with percent grass cover, litter depth, density of low-growing shrubs (western snowberry [SYMPHORICARPOS OCCIDENTALIS] and silverberry [ELAEAGNUS COMMUTATA]), vegetation density, and plant communities dominated by Kentucky bluegrass (POA PRATENSIS) and native GRASS (STIPA, BOUTELOUA, KOELERIA, and SCHIZACHYRIUM) (Schneider 1998). Abundance was negatively associated with percent clubmoss (SELAGINELLA DENSA) cover, bare ground, and plant communities dominated solely by native grass. Strongest vegetational predictors of the presence of Bobolinks were decreasing bare ground, increasing litter, and increasing vegetation density. Madden (1996) found that the best predictors of occurrence in North Dakota mixed-grass prairie were increasing amounts of forb and grass cover, decreasing amounts of shrub cover, and decreasing frequency of native grasses.

In Illinois tallgrass prairie fragments, the best predictors of occurrence were mean number of live forb contacts, mean vegetation height, and mean grass height (Herkert 1994a). In another Illinois study, occurred only in patches of Kentucky bluegrass and were absent from tallgrass prairie (Birkenholz 1973). In Nebraska, abundance in CRP planted to cool-season grasses was significantly and positively correlated with percent litter cover and negatively correlated with vertical density of vegetation (measured using a Robel pole) (Delisle and Savidge 1997). In tame CRP grasslands in lowa, abundance was positively correlated with litter cover and grass canopy cover and negatively correlated with forb cover and the horizontal patchiness of vegetation (Patterson and Best 1996). Abundance in Wisconsin was highest in cool-season grasses, followed by wet pastures, bluegrass (Poa)/quackgrass (AGROPYRON REPENS) communities, and alfalfa (MEDICAGO SATIVA)/grass hayfields (Sample 1989). In New York tame hayfields, increased in abundance as the hayfields aged (Bollinger 1988, 1995). Older hayfields (more than 3 years old) were characterized by sparse, patchy, grass-dominated vegetation and high litter cover.

In Nebraska, nested in wet prairie, alfalfa, upland native prairie, domestic hayland, and wheat (Faanes and Lingle 1995). In Iowa nested under or near native bluestem (ANDROPOGON or SCHIZACHYRIUM not specified) or Kentucky bluegrass (Kendeigh 1941). In Wisconsin nested at the bases of large forbs (Martin 1971). In Montana, nested in a wet-meadow pasture (Silloway 1904). In Ontario, nested in a weedy meadow near a wetland; nests were built in the litter layer, had a canopy of dead grasses, and were surrounded by living vegetation 33-41 centimeters tall (Boyer and Devitt 1961, Joyner 1978). Have been found nesting in CRP fields in Iowa and Michigan (Best et al. 1997).

Occasionally nest in cropland. In Iowa, nested at Iow densities in untilled fields of corn that were idle in the fall and spring and contained year-round crop residue, ratherthan in tilled fields or strip cover (Basore et al. 1986). In Wisconsin, a few were found in small-grain fields, but none were found in rowcrops (Sample 1989). Graber and Graber (1963) report fairly heavy use of small grain fields in Illinois. The species was absent from cropland in Saskatchewan and Manitoba (Hartley 1994, Jones 1994).

NON-BREEDING: In migration and winter also in rice fields, marshes, and open woody areas (AOU 1983).

Egretta caerulea	Little Blue Heron	E/	G5 / S1B	1	0	0	2	0
MARSHES, PONDS, LAKES, MEAD FRESHWATER HABITATS.	DOWS, STREAMS, MANGROVE LAGOONS, AND OTHER BODIES OF CAL	M SHALLOW WATER; PRIMARILY IN						
Egretta thula	Snowy Egret	E/	G5 / S1B	1	0	0	0	0

Marshes, lakes, ponds, lagoons, mangroves, and shallow coastal habitats.

Nests in trees or shrubs or, in some areas, on ground or in marsh vegetation. Often nests with other colonial water birds. Nests over water or ground. See references in Spendelow and Patton (1988) for further details.

Scientific name	Common name	Statuses	Ranks		# of	Осс	u <b>rr</b> er	ıces
Habitat				Ε	Н	F	0 0 0 1 1 2 0 1 1 3 7 0	U
Empidonax minimus	Least Flycatcher	E/	G5 / S1B	4	0	0	0	0
maple was in nearly pure stand, and sub	st borders, thinned woodland, tall second growth. In maple forests in Quebec, o bcanopy was sparse (Darveau 1992). crub, forest edge, parks, old orchards, roadside shade trees, and gardens; in cru							
Falco peregrinus	Peregrine Falcon	E/	G4 / S1B	3	0	0	0	0
	TUNDRA, MOORLANDS, STEPPE, AND SEACOASTS, ESPECIALLY WHERI ESTED REGIONS, AND HUMAN POPULATION CENTERS (B83COM01NA).	E THERE ARE SUITABLE NESTING						
Fulica americana	American Coot	E/	G5 / S1B	1	2	0	0	0
FRESHWATER LAKES, PONDS, MARS BORDERING THESE HABITATS.	SHES, AND LARGER RIVERS, WINTERING ALSO ON BRACKISH ESTUARI	ES AND BAYS. ALSO ON LAND						
Gallinula chloropus	Common Moorhen	Т/	G5 / S1S2B	6	1	0	1	0
· · · · · · · · · · · · · · · · · · ·	rs, lakes, ponds, mangroves, primarily in areas of emergent vegetation and grass among marsh plants over water, occasionally in shrub in or near water. Builds							
Haliaeetus leucocephalus	Bald Eagle	T/LT	G4 / S2B,S2S3N	44	0	1	2	0
· · · · · · · · · · · · · · · · · · ·	ERS, AND LARGE LAKES. PREFERENTIALLY ROOSTS IN CONIFERS IN WI L CONCENTRATIONS OR CONGREGATE IN AREAS WITH ABUNDANT DEA	•	025,020014					
Ictinia mississippiensis	Mississippi Kite	S/	G5 / S2B	13	0	0	0	0
TALL FOREST, OPEN WOODLAND, PI MORE OPEN REGIONS, SCRUBBY O	RAIRIE, SEMIARID RANGELAND, SHELTERBELTS, WOODED AREAS BOR AKS AND MESQUITE.	RDERING LAKES AND STREAMS IN						
Ixobrychus exilis	Least Bittern	Т/	G5 / S1S2B	7	5	0	2	0
· · · · · · · · · · · · · · · · · · ·	IMARILY FRESHWATER, LESS COMMONLY IN COASTAL BRACKISH MAR SCATTERED BUSHES OR OTHER WOODY GROWTH. INFREQUENTLY IN		A).					
Junco hyemalis	Dark-eyed Junco	S/	G5 / S2S3B,S5N	3	0	0	0	0
	REST, FOREST EDGE, CLEARINGS, BOGS, OPEN WOODLAND, BRUSHY A ON AND WINTER IN A VARIETY OF OPEN WOODLAND, BRUSHY AND GRA		,					
Lophodytes cucullatus	Hooded Merganser	Т/	G5 / S1S2B,S3S4N	9	3	0	1	0
STREAMS, LAKES, SWAMPS, MARSH SHELTERED BAYS (B83COM01NA).	HES, AND ESTUARIES; WINTERS MOSTLY IN FRESHWATER BUT ALSO RI	EGULARLY IN ESTUARIES AND	3102B,3334N					
Nyctanassa violacea MARSHES, SWAMPS, LAKES, LAGOC	Yellow-crowned Night-heron	Τ/	G5 / S2B	11	3	0	3	0
Nycticorax nycticorax	Black-crowned Night-heron	Τ/	G5 / S1S2B	4	0	1	7	0
	EAMS, MANGROVES, SHORES OF LAKES, PONDS, LAGOONS; SALT WAT			-т	J		,	J
Pandion haliaetus	Osprey	Т/	G5 / S2B	20	1	1	0	0
	and seacoasts, occurring widely in migration, often crossing land between bod utility poles, wooden platforms on poles, channel buoys, chimneys, windmills, e							

Scientific name	Common name	Statuses	Ranks		# of	Occ	urren	ices
Habitat				Е	Н	F	Χ	U
Passerculus sandwichensis	Savannah Sparrow	S/	G5 / S2S3B,S2S3N	17	1	0	0	0
habitats cover a wide range of vegetation by (Wheelwright and Rising 1993).  In North American grasslands, occupies tall alfalfa (MEDICAGO SATIVA)/brome (BROM and stubble fields, retired cropland, and wheald 1996; Prescott and Murphy 1995, Program lands (Hartley 1994, Johnson and but reached highest densities in pastures at herbaceous vegetation cover (Sample 1985 cover (Renken 1983, Renken and Dinsmord grass cover (Sutter 1996).  Most abundant on Conservation Reserve P Schwartz 1993). In Oregon and Nevada, Reabundance was negatively correlated to ma vegetation was required for nest sites; gras 1992). In Wisconsin, avoided habitats with 1989). In Michigan, nested in hayfields of clumps of grass near cow pies in an overgreproductive success than those nesting in random points, but successful nests were s Avoids areas with extensive tree cover (Whabitats, away from cultivated fields and fer Dakota, were found only on shrubless trans areas with fewer shrubs and more grass an fence posts (Shields 1935). In Saskatchewa Although total woody cover in habitats used fence posts and wire, and tall herbaceous s NON-BREEDING: In migration, open fields, winter, cultivated fields, pastures, golf course.	, roadsides, dunes, coastal marshes, edges of ponds, and rarely in open wo ses, roadsides, dunes, and salt marshes (Wheelwright and Rising 1993).	grassy meadows, and native prairie meadow zones surrounding prairie wetla ation Reserve Program lands, weedy cittley 1994; Johnson and Igl 1995; Patter native, DNC, and Conservation Reservends of hay, pastures, and idle grassland dance was positively correlated to perceive program of the process of hay, pastures, and idle grassland dance was positively correlated to perceive process of hay, pastures, and idle grassland dance was negatively correlated to perceive process of the process of hay, pastures, and idle grassland percent forb cover. In Wisconsin dies (1969, 1973) stated that low, dense is such as pastures and hayfields (Sampland timothy (PHLEUM PRATENSE), and and shrub cover experienced lower ight did not differ between nest sites and net 1984). The same and percent shrub cover. In North erved only on burned and herbicide treaty often included small trees, shrubs, and RPOS OCCIDENTALIS) shrubs (Lein 1 feten used small trees and shrubs (<2 m oodlands (Wheelwright and Rising 1993).	rop rson e ss, eent ass int					
Phalacrocorax auritus	Double-crested Cormorant	Ε/		1	0	0	3	0
	astal bays, marine islands, and seacoasts; usually within sight of land. Nests h sloping areas with good visibility). See Spendelow and Patton (1988) for fu	•	nt					
Pheucticus ludovicianus	Rose-breasted Grosbeak	S/	G5 / S3S4B	5	0	0	0	0
and winter in various forest, woodland, and	borders of swamps and wooded streams, dense growths of small trees, gascrub habitats; avoids interior of closed forest. Usually remains high in treeshickets or small trees, generally 2-5 m above ground.		ation					
Picoides borealis	Red-cockaded Woodpecker	X/LE	G3 / SX	0	4	6	19	2

APPALACHIAN PINE-OAK FORESTS ALONG SANDSTONE RIDGETOPS. THE WELL DEVELOPED MID-STORIES (DOMINATED BY MAPLES, SOURWOOD, AND DOGWOOD) HAVE BEEN REMOVED BY THE U.S. FOREST SERVICE AT ALL KNOWN COLONIES STARTING IN 1989.

Data Current as of January 2005

Scientific name	Common name	Statuses	Ranks		# of	Occ	urrer	nces
Habitat				Е	Н	F	Χ	U
estuarine wetlands (Palmer 1962, Chabre vegetation, especially cattail (TYPHA spr 1976, Sealy 1978, Forbes et al. 1989). We the nest, and conceals the nest from precedent of the sheltered nesting sites can be limiting (Faction, and nest-site selection was relate locations, nests were characterized by gr Microhabitats at Manitoba wetlands inclur (Nudds 1982). In lowa, always associate moist-soil impoundments in Missouri, hat (Fredrickson and Reid 1986). Grebe use NON-BREEDING: Habitats in winter and	Pied-billed Grebe onds, sloughs, and marshes, in marshy inlets and along edges of rivers, lake eck 1963, Cramp et al. 1977, Andrle and Carroll 1988). Nests are typically be on and bulrush (SCIRPUS spp.), and are farther from shore than from open within and waves are major threats to floating nests and surrounding emergent dators (Forbes et al. 1989). Because the direction of wind and waves shifts feaborg 1976). In Nova Scotia, avoided nesting on edges of stands of emerged to structure but not type of vegetation available(Forbes et al. 1989). In conceater distance from shore, increased proximity to open water, and deeper with dense stands of emergent, littoral vegetation available, particul do with dense stands of emergent, littoral vegetation, and avoided wetlands we boitat use was associated with water > 25 cm deep and vegetative cover char was not associated with shallower waters or "dense" or "rank" emergent vegetation similar to breeding areas (Cramp 1977), but many shift to more evandsalt water (Palmer 1962). Root (1988) noted that the densest overwintering	uilt in shallow water surrounded by dens water (Glover 1953, Stewart 1975, Faab t vegetation acts as a wave break, anchorequently during the nesting season, ent vegetation that were exposed to wave parison to randomly chosen marsh ater (Forbes et al. 1989). larly those in deeper portions of ponds vith 100% open water (Faaborg 1976). Cacterized as "open, sparse, or short" getative cover (Fredrickson and Reid 1984) oposed areas on brackish, estuarine wat	org ors e on 36). ers	6	3	0	2	0
Pooecetes gramineus PLAINS, PRAIRIE, DRY SHRUBLANDS, (B83COM01NA).	Vesper Sparrow , SAVANNA, WEEDY PASTURES, FIELDS, SAGEBRUSH, ARID SCRUB A	E / ND WOODLAND CLEARINGS	G5 / S1B	2	7	0	0	0
Rallus elegans FRESHWATER MARSHES AND SWAM	King Rail PS, LOCALLY IN BRACKISH MARSHES.	E/	G4G5 / S1B	2	1	0	2	0
Riparia riparia OPEN AND PARTLY OPEN SITUATION	Bank Swallow IS, FREQUENTLY NEAR FLOWING WATER (B83COM01NA).	S/	G5 / S3B	20	2	0	4	0
Sitta canadensis  APPARENTLY RESTRICTED TO COVE  OCCUPIED WITHIN THE DANIEL BOON	Red-breasted Nuthatch FOREST W/ HEMLOCK AND PINES, ESPECIALLY WHITE PINE, ALTHONE NATIONAL FOREST.	E / UGH ALL SUCH HABITAT IS NOT	G5 / S1B	1	0	0	0	0
Sterna antillarum athalassos BARE OR NEARLY BARE ALLUVIAL ISI	Interior Least Tern LANDS OR SAND BARS.	E/LE	G4T2Q / S2B	20	1	0	4	1
,	Bewick's Wren IUB IN OPEN COUNTRY, OPEN AND RIPARIAN WOODLAND, AND CHAF AREAS (SUBTROPICAL AND TEM- PERATE ZONES) (B83COM01NA). F	· · · · · · · · · · · · · · · · · · ·		55	5	0	0	0
	Barn Owl IN A WIDE VARIETY OF SITUATIONS, OFTEN AROUND HUMAN HABITA ONIFERS; ALSO ROOSTS IN NEST BOXES IF AVAILABLE (A85MAR01N	,	G5 / S3	39	7	0	0	0

Scientific name	Common name		Ranks		# of	Occ	urron	201
Habitat	Common Hamo	Statuses	ramo	Е			0 1 1 0 0	
Vermivora chrysoptera	Golden-winged Warbler	Т/	G4 / S2B	2	7	0		0
BREEDING: Deciduous woodland, usually in dry uplands or areas of thick undergrowth in swampy areas, woodland edge with low cover, hillistic scruit; overgrown pastures, abandoned farmland; powerline right-of-ways; recently logged sites; bogs, forest openings, territories usually have patches of herbs and shrubs, sparse tree cover, and a woodlad perimider (Confer 1992). Habitat tracts of 10-15 has can support several pairs and are prefered over both smaller and larger areas (Confer 1992). Habitat can be created through logging, burning, and intermittent farming (Confer 1992). Habitat is ephemeral and requires periodic disturbance to return it to flovaroble early successional conditions. Nests on or a little above ground, in grass tuff, ferror weed clumps are based of shrub, tree, ferns, briars, or goldenrod (Harrison 1978, Confer 1992). Often the clump includes a faller stem used for descent to the nest. Nests usually at the ecotone of a forest with a field or markh, or in a small opening in a forest (Confer 1992).  Nested abundantly in the chestnut-sprout (CASTANEA DENTATA) forests of West Virgina following the spread of the chestnut light (Hall 1983). Commonly nest in uplands sites on abandoned farmland in early stagges of succession (e.g., Confer and Knapp 1981), or occasionally in logged areas (e.g., Will 1986). In the Canadian shield in Ortario, they nest*in alder (ALNUS spp.) bogs, especially when a few taller species (of frees) are present* (Mills 1987). Several observers have mentioned nesting in powerline right-fo-ways. In southern Michigan they nested in and around the edges of thiosy woodle portions of famamack (LARIX LARICINA) swamps as well as in small, brushy clearings (Will 1986). In orthern Michigan, Will described their habitat as including by feeds overgrown with shrubs, and woodland clearings, as well as very wet areas that were recently logged and covered with field trees as in which there has been considerable invasion by brush, shrubs, and saping trees.*  Vegetative characteristics of ter								
DENSE BRUSH, MESQUITE, STREAN WOODLAND, BOTTONLANDS, WOOD	MSIDE THICKETS, AND SCRUB OAK, IN ARID REGIONS BUT OFTEN NEAR WATE	R (B83COM01NA); MOIST		9	1	0	1	0
WOODLAND UNDERGROWTH (ESPE	Canada Warbler ECIALLY ASPEN-POPLAR), BOGS, TALL SHRUBBERY ALONG STREAMS OR NEAI AND WINTER IN VARIOUS FOREST, WOODLAND, SCRUB, AND THICKET HABITAT	R SWAMPS, AND DECIDUOUS	i	5	1	0	0	0
Mammals								
Clethrionomys gapperi maurus	Kentucky Red-backed Vole	S/	G5T3T4 / S3	11	8	0	0	0

Scientific name	Common name	Statuses	Ranks	# of Occurren		ices		
Habitat				E	Н	<u> </u>	0 0	U
Corynorhinus rafinesquii  Inhabits forested regions. Hibernation in the stay near the entrance (often within 30 m) a shelters in sandstone formations of the Cur they are suspected to use hollow trees for Summer roosts often are in hollow trees, on In a Louisiana study, Lance et al. (2001) de under bridges 50% of the time and in black Kentucky and Tennessee (Barbour and Da Mountains National Park (Currie 1992). In the Arkansas they are found in cisterns and we mines and hollow trees (Strayer 1992b). In	Rafinesque's Big-eared Bat e north and in mountainous regions most often occurs in caves or similar sites; and are thought to move about in winter (Handley 1959, Barbour and Davis 19 mberland Plateau often are used (MacGregor 1992). Winter habitat in the soutl cold weather, and possibly winter roosts (Clark 1992). ccasionally under loose bark, or in abandoned buildings in or near wooded are emonstrated that bridges, especially girder bridges, are important day-roost site (a gum trees (NYSSA SYLVATICA) 50% of the time. Nursery colonies are rare in vivis 1969). A large nursery colony (87 adults in June of 1985) roosts in abandon the southern portions of the range these bats rarely hibernate in caves, and oft tells rather than caves (Harvey 1992b). In the mountains of South Carolina they the coastal plain of North Carolina, they move into old buildings in the summe outs in the summer (Clark 1992). In central Florida, a maternity roost was in an	69). In Kentucky, shallow caves or rich is poorly known. In the Coastal Placas, instead of being restricted to caves. Tagged bats in this study roosted n caves, but are known to occur in ned copper mines in Great Smoky ten roost in buildings year round. In the roost in rock houses, abandoned got. They are known to use hollow tree.	ock nin res. d d old es as	223		1	1	0
Dilapidated buildings are inhabited more co darkest parts of such buildings. Others hav Barbour and Davis 1969, Harvey 1992). Cla The foraging habitat is primarily mature fore mature hardwood floodplain forest; sites al	cupied for several years by the mid-1990s (Finn 1996). commonly than are intact occupied structures, and Clark (1987) and Strayer (19 we reported that these bats choose more open and lighted daytime roosts than ark (1987) agreed that in caves and mines this species prefers areas receiving est in both upland and lowland areas. In North Carolina and Virginia, foraging hong permanent water bodies, especially rivers, are preferred (Clark 1987). It has boastal plain region only after large old hollow trees became scarce (Currie 1992).	other kinds of bats (Handley 1959, g some natural light. habitat for subspecies MACROTIS is as been suggested that the species	<b>S</b>					
Corynorhinus townsendii virginianus	Virginia Big-eared Bat	E/LE	G4T2 / S1	68	2	0	0	0
	/E-DWELLING SPECIES THAT HAS BEEN SELDOM REPORTED ANYWHEI OTHER PROTECTED SITES ALONG CLIFFLINES, ESPECIALLY FOR SUMM							
Mustela nivalis	Least Weasel	S/	G5 / S2S3	13	1	0	0	0
meadows, scrub, steppe and semi-deserts, dense forest and sandy desert. When inact	open forests, farmlands and cultivated areas, grassy fields and meadows, ripa, prairies, coastal dunes, and sometimes rural residential areas; snow cover is tive, occupies burrow made by vole or mole, or rests in nest in hole in wall of be born in abandoned underground burrows made by other mammals (or similar	not an obstacle; generally avoids de uilding or under corn shock or simila	•					
Myotis austroriparius	Southeastern Myotis	E/	G3G4 / S1S2	24	0	1	0	0
THE SOUTHEASTERN MYOTIS USES PF	RIMARILY CAVES FOR HIBERNACULA AND SUMMER MATERNITY AND R	OOSTING SITES.						

Data Current as of January 2005

Scientific name Common name Statuses R					# of	Оссі	ırren	ces
Habitat				Е	Н	F	Χ	U
Myotis grisescens	Gray Myotis	T/LE	G3 / S2	73	18	3	8	0
Roost sites are nearly exclusively restricted to caves throughout the year (Hall and Wilson 1966, Barbour and Davis 1969, Tuttle 1976), though only a few percent of available caves are suitable (Tuttle 1979). Winter roosts are in deep vertical caves with domed halls. Large summer colonies utilize caves that trap warm air and provide restricted rooms or domed ceilings; maternity caves often have a stream flowing through them and are separate from the caves used in summer by males.  Occasionally non-cave roost sites are used. Hays and Bingman (1964) reported a colony in a storm sewer in Pittsburg, Kansas and, in 1988, a maternity colony was discovered using a storm sewer in Kansas (Decher and Choate 1988). Harvey and McDaniel (1988) located a maternity colony in a storm sewer in downtown Newark, Independence County, Arkansas. There are occasional reports of mines (Sealander 1979, Thom 1981, Brack et al. 1984, Harvey 1988) and buildings (Gunier and Elder 1971) being used as roost sites.  Winter caves are deep and vertical and provide a large volume of air below the lowest entrance that acts as a cold air trap (Tuttle 1976). Cold air flows in and is trapped during successive winters, providing mean annual temperatures of degrees C or more below the above-ground mean annual temperature (Tuttle 1978). Winter cave temperatures range from 6 to 11 degrees C (Tuttle 1979).  In the summer, maternity colonies prefer caves that act as warm air traps or that provide restricted rooms or domed ceilings that are capable of trapping the combined body heat from thousands of clustered individuals (Tuttle 1975, Tuttle and Stevenson 1977). Cave temperatures range from 14 to 24 C. Undisturbed summer colonies may contain up to 250,000 bats, and average 10,000 to 25,000 (Tuttle 1979). Summer caves are nearly always located within 1 km of a river or reservoir over which the bats forage (Tuttle 1979).  Tuttle (1979) showed that forested areas along the banks of streams and lakes provide important protection for adults and young. Young of								
Myotis leibii	Eastern Small-footed Myotis	Т/	G3 / S2	50	2	0	0	0
LIEB'S BATS USE A VARIETY OF HAE	BITATS. THEY OCCUR IN CAVES, MINES, PROTECTED SITES ALONG		AND	20	_	J	•	ū

LIEB'S BATS USE A VARIETY OF HABITATS. THEY OCCUR IN CAVES, MINES, PROTECTED SITES ALONG CLIFFLINES, ABANDONED BUILDINGS, AND ARE OCCASIONALLY FOUND ROOSTING UNDER ROCKS ON THE GROUND OR ON THE FLOORS OF CAVES. SUMMER HABITAT IS CURRENTLY UNKNOWN, BUT MAY

Scientific name	Common name	Statuses	Ranks		# of Occurrences				<b>LES</b>	
Habitat				E	Н	ł	F	Χ	U	
Myotis sodalis	Indiana Bat	E/LE	G2 / S1S2	13:	5 9	-	4	4	0	_

Hibernates in caves; maternity sites are in trees.

In hibernation, limestone caves with pools are preferred. Hall (1962) noted that preferred caves are of medium size with large, shallow passageways. Roosts usually are in the coldest part of the cave. Preferred sites have a mean midwinter air temperature of 4-8 C (tolerates much broader range) (Hall 1962, Henshaw and Folk 1966), well below that of caves that are not chosen (Clawson et al. 1980). Roost site within cave may shift such that bats remain in the coldest area (Clawson et al. 1980); may move from a location deeper in the cave to a site nearer the entrance as the cold season progresses; moves away from areas that go below freezing. Hibernation in the coldest parts of the cave ensures a sufficiently low metabolic rate so that the fat reserves last through the six-month hibernation (Henshaw and Folk 1966, Humphrey 1978). Relative humidity in occupied caves ranges from 66 to 95% and averages 87% throughout the year (Barbour and Davis 1969, Clawson et al. 1980). Because of these requirements, M. SODALIS is highly selective of hibernacula.

During the fall, when these bats swarm and mate at their hibernacula, males roost in trees nearby during the day and fly to the cave during the night. In Kentucky, Kiser and Elliott (1996) found males roosting primarily in dead trees on upper slopes and ridgetops within 2.4 km of their hibernaculum. During September in West Virginia, males roosted within 5.6 km in trees near ridgetops, and often switched roost trees from day to day (C. Stihler, West Virginia Division of Natural Resources, pers. observ. October 1996, cited in USFWS 1999). Fall roost trees tend to be in sunnier areas rather than being shaded (J. MacGregor, pers. observ. October 1996, cited in USFWS 1999).

In summer, habitat consists of wooded or semiwooded areas, mainly along streams. Solitary females or small maternity colonies bear their offspring in hollow trees or under loose bark of living or dead trees (Humphrey et al. 1977, Garner and Gardner 1992). Humphrey et al. (1977) determined that dead trees are preferred roost sites and that trees standing in sunny openings are attractive because the air spaces and crevices under the bark are warmer. In Illinois, Garner and Gardner (1992) found that typical roosts were beneath the exfoliating bark of dead trees; other roost sites were beneath the bark of living trees and in cavities of dead trees. Kurta et al. (1993) found a large maternity colony in a dead, hollow, barkless, unshaded sycamore tree in a pasture in Illinois. In Michigan, a reproductively active colony occupied eight different roost trees (all green ash), all of which were exposed to direct sunlight throughout the day; bats roosted beneath loose bark of dead trees (Kurta et al. 1993). In western Virginia, a male used a mature, live, shagbark hickry tree as a diurnal roost; the bat foraged primarily among tree canopies of an 80-year-old oak-hickry forest (Hobson and Holland 1995). In Missouri, primary maternity roosts were in standing dead trees exposed to direct sunlight; there were 1-3 primary roosts per colony; alternate roosts were in living and dead trees that typically were within the shaded forest interior (Callahan et al. 1997). See Garner and Garner (1992) for detailed information on summer habitat in Illinois. Though maternity sites have been reported as occurring mainly in riparian and floodplain forests (Humphrey et al. 1977, Garner and Gardner 1992), recent studies indicate that upland habitats are used by maternity colonies much more extensively than previously reported. Garner and Gardner (1992) reported that 38 of 51 roost trees in Illinois occurred in uplands and 13 trees were in floodplains. Of the 47 trees in forested habitat, 27 were in areas having a closed (80-100%) canopy, and 15 were in areas having an intermediate (30-80%) canopy. A single roost tree was found in the following types of habitat: a heavily grazed ridgetop pasture with a few scattered dead trees, a partially wooded swine feedlot, a palustrine wetland with emergent vegetation, a forested island in the Mississippi river, and a clearcut around a segment of an intermittent stream where dead trees were retained for wildlife. Roosts were not found in forests with open canopies (10-30%) or in old fields with less than or equal to 10% canopy cover.

Roost trees include slippery elm (ULMUS RUBRA), American elm (ULMUS AMERICANA), northern red oak (QUERCUS RUBRA), post oak (QUERCUS STELLATA), white oak (QUERCUS ALBA), shingle oak (QUERCUS IMBRICARIA), shagbark hickory (CARYA OVATA), bitternut hickory (CARYA CORDIFORMIS), sweet pignut hickory (CARYA OVALIS), silver maple (ACER SACCHARINUM), sugar maple (ACER SACCHARUM), cottonwood (POPULUS DELTOIDES), green ash (FRAXINUS PENNSYLVANICA), and sassafras (SASSAFRAS ALBIDUM) (Cope et al. 1974, Humphrey et al. 1977, Garner and Gardner 1992). See Garner and Gardner (1992) for a detailed description of tree characteristics.

In Illinois, Indiana bats used the same, evidently traditional, roost sites in successive summers. Recapture of the same individuals within traditional roost sites during subsequent summers suggests site fidelity (Garner and Gardner 1992).

Relatively few individuals roost in caves at the mouths of which late summer swarming occurs (Cope and Humphrey 1977, Barbour and Davis 1969).

Nycticeius humeralis	Evening Bat	S/	G5 / S3	40	3	0	0	0
THE EVENING BAT IS A COLONIAL SPE	CIES THAT ROOSTS IN TREES AND HOUSES. IT APPARENTLY M	GRATES SOUTHWARD IN WINTER.						
Peromyscus gossypinus	Cotton Mouse	Т/	G5 / S2	2	0	0	0	0
PREFERRED HABITAT MAY BE WOODE	ED STREAMBANKS, SWAMPY WOODS AND BRUSHLAND (BARBOU	JR AND DAVIS 1974).						
Sorex cinereus	Cinereus Shrew	S/	G5 / S3	14	7	0	0	0
appears adaptable to major successional of	g areas with very little or no vegetation. Thick leaf litter in damp forests disturbances. In Nova Scotia, diet indicated that much foraging was dor urrows or above ground in logs and stumps.	, ,						
Sorex dispar blitchi	Long-tailed Shrew	E/	G4T3? / S1	5	1	0	0	0
Spilogale putorius	Eastern Spotted Skunk	S/	G5 / S2S3	12	3	0	0	0

WOODED AREAS, ESPECIALLY ALONG CLIFFLINES. WILL USE ABANDONED BUILDINGS.

Scientific name	me Common name Statuses	Statuses	Ranks	# of Occurrences					
Habitat			Е	Н	F	Χ	U		
Ursus americanus  LARGELY FORESTED AREAS.  Communities	American Black Bear	\$1	G5 / S2	15	0	0	0	0	
Acid seep		N/	GNR / S3S4	1	0	0	0	0	
Acidic mesophytic forest		N /	GNR / S5	10	1	0	1	0	
Acidic sub-xeric forest		N/	GNR / S5	7	0	0	0	0	
Appalachian acid seep		N /	GNR / S2	28	0	0	0	0	
Appalachian mesophytic forest		N /	GNR / S5	13	3	0	1	0	
Appalachian pine-oak forest		N /	GNR / S5	8	0	0	0	0	
Appalachian sub-xeric forest		N/	GNR / S5	4	0	0	0	0	
Bluegrass mesophytic cane forest		N/	GNR / S2	1	0	0	0	0	
Bluegrass savanna-woodland		N /	GNR / S1	2	0	0	0	0	
Bottomland hardwood forest		N /	GNR / S2	17	0	0	2	0	
Bottomland hardwood swamp		N /	GNR / S2S3	1	0	0	0	0	
Bottomland marsh		N /	GNR / S1S2	6	0	0	0	0	
Calcareous mesophytic forest		N /	GNR / S5	10	0	0	0	0	
Calcareous seep		N /	GNR / S1	1	0	0	0	0	
Calcareous sub-xeric forest		N /	GNR / S5	9	0	0	0	0	
Coastal plain mesophytic cane forest		N /	GNR / S2S3	1	0	0	0	0	
Coastal plain slough		N/	GNR / S2S3	3	0	0	0	0	
Cretaceous hills forested acid seep		N /	GNR / S1	2	0	0	0	0	
Cumberland highlands forest		N /	GNR / S1	1	1	0	0	0	
Cumberland mountains xeric virginia pine woodland		1	GNR / S4	3	0	0	0	0	
Cumberland plateau gravel/cobble bar		N /	GNR / S2	11	0	0	0	0	
Cumberland plateau sandstone glade		N /	GNR / S2S3	3	0	0	0	0	
Cypress swamp		N /	GNR / S3	5	0	0	0	0	
Deep soil mesophytic forest		N /	GNR / S2	3	0	0	0	0	
Depression swamp		N/	GNR / S2	5	0	0	1	0	
Dolomite glade		N /	GNR / S2	2	0	0	1	0	
Floodplain ridge/terrace forest		N/	GNR / S1	3	0	0	0	0	
Floodplain slough		N/	GNR / S2S3	5	0	0	0	0	
Hemlock-mixed forest		N/	GNR / S5	12	0	0	0	0	
Knobs shale barrens		N/	GNR / S2S3	3	0	0	0	0	

Scientific name	Common name	Statuses	uses Ranks	# of Occurrences					
Habitat				Е	Н	F	Χ	U	
Limestone barrens		N /	GNR / S2	13	0	0	0	0	
Limestone flat rock glade		N /	GNR / S1	2	0	0	0	0	
Limestone prairie		N /	GNR / S1	3	0	0	1	0	
Limestone slope glade		N /	GNR / S2S3	27	0	0	0	0	
Pine savanna-woodland		N /	GNR / S1	1	0	0	0	0	
Riparian forest		N /	GNR / S3	2	0	0	1	0	
Sandstone barrens		N /	GNR / S1	3	0	0	0	0	
Sandstone prairie		N /	GNR / S1	1	0	0	0	0	
Shawnee hills sandstone glade		N /	GNR / S2	3	0	0	0	0	
Shrub swamp		N /	GNR / S2S3	4	0	0	0	0	
Siltstone/shale glade		N /	GNR / S3S4	7	0	0	0	0	
Sinkhole/depression pond		N /	GNR / S2S3	3	0	0	0	0	
Tallgrass prairie		N /	GNR / S1	1	0	0	0	0	
Wet prairie		N /	GNR / S1	1	0	0	0	0	
Xeric acidic forest		N /	GNR / S5	4	0	0	0	0	
Xerohydric flatwoods		N /	GNR / S1S2	5	0	0	0	0	

Data Current as of January 2005 Page 50 of 50